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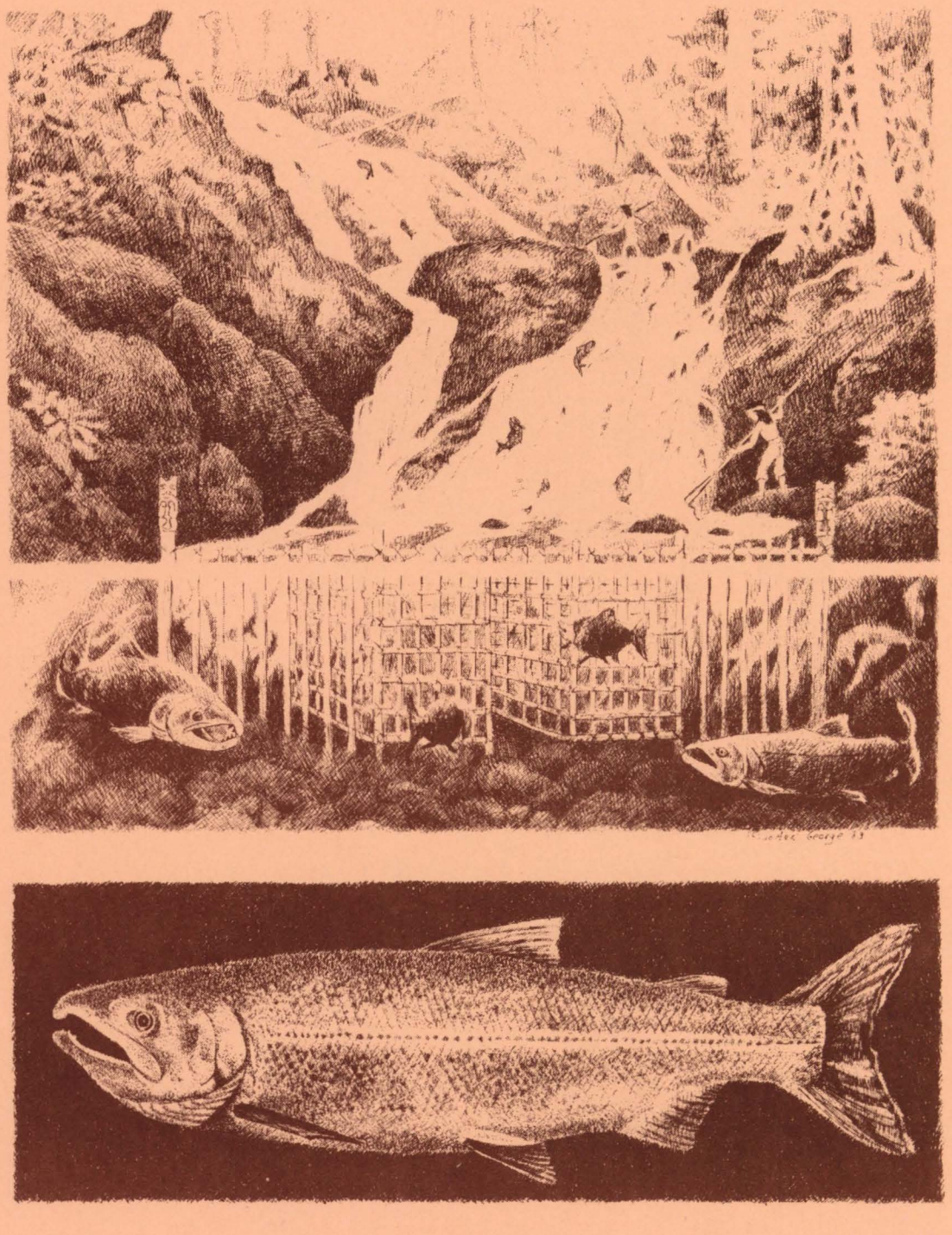
The Subsistence Lifeway of the Tlingit People

Excerpts of Oral Interviews

Richard Newton and Madonna Moss



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The cover is a reproduction of an original pen and ink drawing by Angoon artist JoAnn George entitled Salmon Fishing. JoAnn graciously consented to the use of her drawing for the cover. It represents one of the important subsistence resources of the Tlingit people.

To the regal ancestors of my proud heritage I dedicate this book, for through them have come the values I treasure.

More specifically I dedicate it to my paternal grandfather, Timothy Newton, referred to by John Jackson.[1] To my mother, Annie Newton, to whom Timothy taught values of subsistence living and who in turn, taught me. How well I remember her saying, "for supper we are going to have our own Tlingit food! It is good for our system. Unless I have it now and then, I am always feeling hungry."

This is simply my way of saying "thank you" for the work that went into my training and the opportunity given me by the Forest Service to be one of the early contributors on this subject.

Richard Newton, Fall, 1983

[1] John C. Jackson tape-recorded interview, Tape 4.

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Foreword

The Forest Service recognizes the value of the Tlingit knowledge regarding the land and resources it manages. To increase its awareness and sensitivity to this knowledge, Richard Newton served as a Native Historian for the Forest Service during 1979. Dick had recently retired after many years with the Regional Office in Juneau. His own personal knowledge of his heritage, and his relationship with the elders in some of the outlying communities made him an ideal person for the job.

Dick's assignment was to gather information about subsistence food. There was no formal plan of research, no tightly structured format to follow. Dick went to some of the villages and spoke with the elders in the Tlingit language. He taped and later translated and transcribed the interviews. The interviews cover many topics, including some not directly related to subsistence. In the typical Tlingit way, hard technical data is interwoven with subtleties of the Native world view. What you will find in this book is a small portion of the total wealth contained in the transcriptions.

This book is not a comprehensive study of Tlingit subsistence living. There are obvious gaps in the information presented herein. Our intent is to follow through with Dick's objective—to help preserve a rapidly vanishing part of Tlingit history. Knowledge of the subsistence lifeway can help us to understand the Native perspective and can enhance all of our lives. Dick Newton, Klgak'eesh, took it upon himself to cast the nets, and it is our turn to share his impressive catch.

United States Department of Agriculture
Forest Service
Alaska Region
P.O. Box 1628
Juneau, AK 99802

Reply to: 1600

Date: July 24, 1984

Dear Reader:

The Subsistence Lifeway of the Tlingit People: Excerpts of Oral Interviews, represents the work of many people, but if one person were to be singled out, it is Richard Newton. The project was originally conceived during a meeting of cultural leaders in Sitka, six years ago. They recognized the wealth of information on subsistence which should be preserved for the future.

Dick wanted to preserve the subsistence information that many elderly Tlingit people possessed. He began a series of interviews in 1978 collecting information from knowledgeable Tlingit elders throughout Southeast Alaska. At the same time, Madonna Moss, a young archaeologist working for the Forest Service with a keen interest in Tlingit culture also interviewed several people.

Dick Newton translated and transcribed his interviews into English. He also collected other information on subsistence foods. Madonna working with Dick took the transcripts and extracted relevant materials and compiled this manuscript.

This publication is a legacy of Dick Newton's dedication to the Tlingit culture. The original interview tapes and transcripts contain a wealth of additional information which is also preserved for the future. They are on file with the Forest Service offices in Juneau and the Rasmusen Library at the University of Alaska, Fairbanks.

I offer my sincere thanks to Dick and Madonna for enabling the Forest Service to present this invaluable information on Tlingit subsistence to others.

Sincerely,

JOHN A. SANDOR
Regional Forester

FS-6200-11b (7/81)

Preface

by Richard Newton

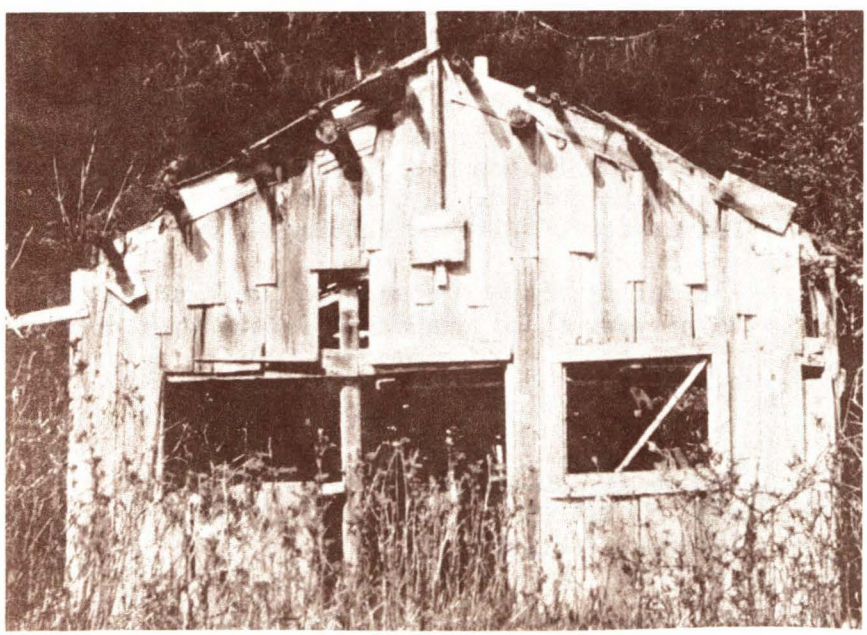
Much has been said about subsistence since the Alaska Native Claims Settlement Act was passed in 1971. Each Eskimo, Aleut, Tlingit, and Athapascan village expresses the subsistence lifestyle in a unique way. Each contributes to the diversity and strength of our Alaskan heritage.

Congressmen from Washington, Alaska State legislators, State and Federal officials have jobs to do and jobs to keep. Newcomers from the "lower forty-eight" demand their share and pack home their souvenirs of smoked salmon. Urban residents feel threatened that they will not be able to fish and hunt freely. Of course, it makes economic sense to supplement one's income by putting up fish, meat, and berries. But that is not subsistence living as we have known it in the past.

According to Webster's Collegiate Dictionary, subsistence is the minimum food or shelter to support life. Tlingit people have learned how to survive the weather and keep body and soul together. We have special regard for the fish and other animals we use for food. We know and respect the weather and the waters. Fish streams, hunting grounds, and berry patches were more than a means of filling our "minimum daily requirements." For us subsistence food is a tangible link with the past, with a way of life that is quickly fading.

In transition to the modern day, laws required children to attend school. This was good, and encouraged children to learn things about the world. But parents could not take children out of school, and attendance at traditional "places of higher learning"—the bays and fish streams and mountains, was limited to summer vacations. At school, and in the larger towns and cities, the younger Tlingit began to partake in Western ways and in the cash economy. More money was needed to survive, more money than one could make living in the villages.

Nowadays, young people are trying to remember the words of their grandparents. They are learning our subsistence ways. The interest in our traditions is growing not only because Indian food tastes good. It is because it is one of the only ways our culture can survive.



1. Abandoned smokehouse near Angoon.

Acknowledgments

The value and significance of this work derives from the special contributions of the Tlingit people to whom we offer our sincere thanks:

Annie Bennett	Kux̲ skoon	Juneau
George Dalton, Sr.	Naa tl'aa	Hoonah
Jessie Dalton	Shtoo woo k̲aa	Hoonah
George Davis	Keech naa'lk	Hoonah
Matthew Fred, Sr.	Tl'aa dee x̲ee	Angoon
Matilda Gamble	Yei deit k̲oo la'tsin	Angoon
Jimmie George	Woox̲ ka doo aa	Angoon
Lydia George	K̲u deish g̲ee	Angoon
John C. Jackson	G̲oocheesh	Kake
Ruby Jackson	Shon g̲ei g̲ei	Juneau
Chester James	Shkwaanax̲k	Kake
Mərtha James	K̲a saa waa	Petersburg
William James	L'a g̲ooch	Petersburg
George Jim, Sr.	Ya nush too'k̲	Angoon
Elsie John	Noonteiyei	Juneau
Minnie Johnson	Sa'soox̲	Angoon
Louise Kadake	Sha kin dax̲	Kake
Henry Katasse	Nagee lanei	Petersburg
William Nelson, Sr.	Taa in'	Angoon
Josephine Paul	Tok' l shage'	Kake
Albert Wallace, Sr.		Juneau
Melba Wallace		Juneau
Walter Williams	Dak̲'laweitk'i	Kake

Most of the interviews were conducted by Richard Newton, in Tlingit. Dick, as well as Lydia George and Matthew Fred worked as translators. Lydia and Jimmie compiled a large historical file which will be of enduring cultural significance. In addition to his work as a translator, Matthew Fred is to be thanked for patiently interpreting many aspects of Tlingit culture to all his Forest Service co-workers. Many other people from the Forest Service have contributed their time and talents, but the prime mover of this project was K.J. Metcalf, former manager of Admiralty Island National Monument. Kaye's foresight and his ability to "make things happen" provided the impetus to initiate the project and move it through the data collection phase.

Since that time, Helen Castillo has taken over the helm, and coordinated the efforts of administrative and technical staff; Julie Shelton, Shannon Alps, Cynthia Jim, Judy Camp, Kandi Anderson, and Ross Writer have all assisted in preparation of this manuscript.

Dr. William Schneider of University of Alaska, Fairbanks, has given both technical assistance and moral support at various stages of the project. We are indebted to Bill for his intellect as well as his heart. Jon Erlandson provided useful information during our many discussions of subsistence and nutrition, and his editorial suggestions have added to the clarity of the writing. Jon's continued personal support as well as that of special Angoon friends, Gabriel and JoAnn George, Ivan and Jeanne Gamble, and Daniel Johnson, Sr. have contributed to this project in countless ways. With pride, we display JoAnn's fine work as our cover illustration.

Finally, our utmost appreciation is due to all the Tlingit people, both living and deceased, who share in the rich Tlingit tradition, a portion of which is offered in the following pages.

Madonna L. Moss, Fall, 1983

Introduction

This book is a collaboration; most of the interviews were conducted by Dick Newton in Tlingit, while Madonna Moss interviewed a number of Tlingit elders in English. Dick translated his interviews into English and transcribed them; Madonna shaped the text presented here by rearranging the various contributions according to topic area. The narrative has been adjusted by making certain grammatical and tense changes, and in some cases by deleting redundancies. Our intent, however, is to let the Tlingit cultural specialists speak for themselves, since the body of literature on the Tlingit includes much that has been written by "outsiders." Since we are fortunate to have had the Tlingit story told by Tlingit people, we hope to preserve the unique flavor of their words. You will find that the Native way of expression is different, but it communicates just as effectively and perhaps more eloquently than standard English.

The many and varied contributions from the cultural specialists structure the text. You will read long passages quoted directly from the transcriptions which are referenced to the taped translations (see Appendix I for the complete list of taped interviews). In some cases, several individuals have given accounts of the same topic. Despite some similarities in the individual statements, they are presented in their entirety in an effort to preserve their integrity. As previously mentioned, the transcriptions and the tapes contain much more than could be presented here. Logs of taped interviews, as well as copies of the transcriptions, and the tapes themselves have been archived at the University of Alaska's Rasmuson Library in Fairbanks and the Regional Office of the USDA Forest Service in Juneau, Alaska. The original tapes reside at the offices of Admiralty Island National Monument in Juneau.

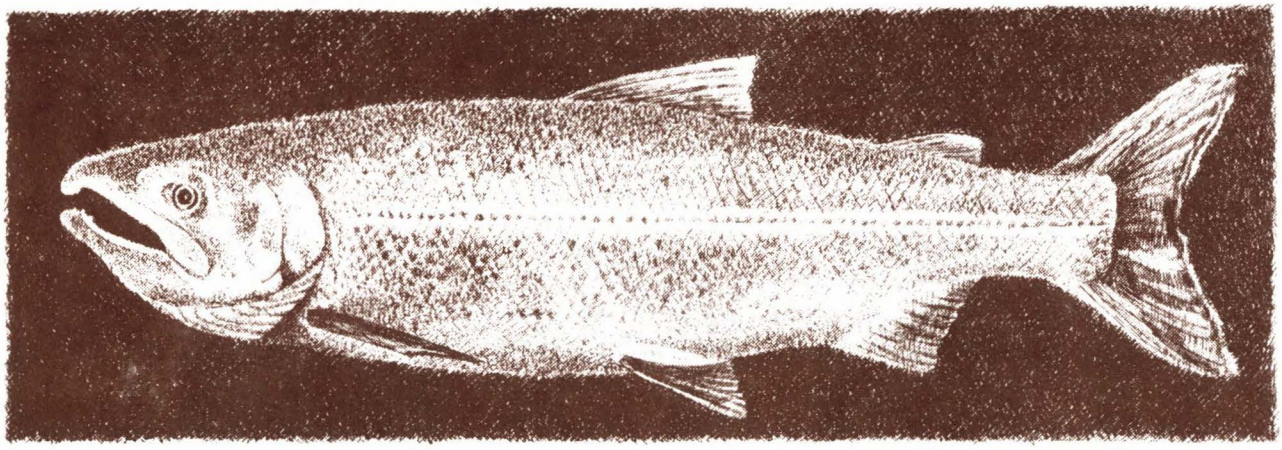
The nutritional value of the Tlingit diet is of interest to many people and this subject is discussed in Appendix II. Appendix III includes a complete list of all the Tlingit words which have been used in this book. We have chosen the orthography developed by Constance Nash and Gillian Story because of its special meaning to one of the authors.

Most of the cultural specialists have recollections of their grandparents who still practiced the subsistence lifestyle in traditional ways. However this account is not a historical reconstruction devoid of non-Native influence. The Tlingit people who contributed to this book know the old ways, and some of them have adapted traditions to fit contemporary times. This is shown by their creative use of simile and metaphor which enhances their ability to communicate; they draw from experiences of modern times or Western custom to elucidate the old ways. For instance, George Davis, describing the method of collecting seaweed says, "you roll them right on the rock and they look like little cigars." The Tlingit speakers are often quite explicit, and we hope our readers will learn enough to be able to successfully prepare some of these Native foods.

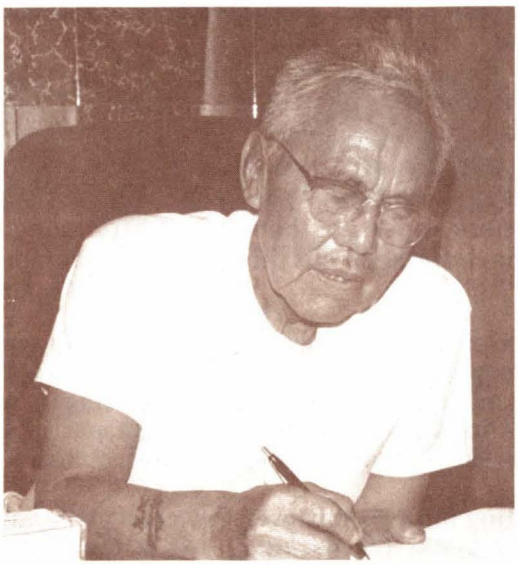
The Subsistence Lifeway of the Tlingit People

Excerpts of Oral Interviews

Richard Newton and Madonna Moss



Traditions of the Subsistence Lifeway



2. Henry Katasse in his home, Petersburg, 10/13/83.

3. K.J. Metcalf observing an old cache pit on an ethnohistoric site.

[2] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

The subsistence way of life is just one of the many ways the Tlingit people have reasserted their Native identity. Other cultural traditions are still alive; these include various performance arts, like dancing, singing, and oratory. Objects fashioned by contemporary artists—carvings in wood and precious metals, basketry and beadwork—grace art galleries, museum exhibits, and shop windows. But traditional food was, and in many cases, remains a part of daily life. It is true that contemporary Tlingit people, especially in the larger towns, often rely heavily on "store bought" food. But many people continue to depend on wild foods for a considerable proportion of their dietary needs. As Henry Katasse explains, Native food provides more than nutrients:

"Our bodies are accustomed to the various food that we eat. Our body craves it, we have many things that nature provided by season. There are seasons for vegetables, greens, seasons for fat; seasons for shellfish, and seasons for many things when it's time for us to eat and enjoy them. All we have to do is accumulate them and put them away for the winter . . . We never bothered anything out of season . . . By putting up different foods and making them taste good we make it more pleasant to live . . . The old timers had a certain way of preparing it, they all had their own methods and tricks . . . they took a great deal of pride in putting up their food so that people would enjoy eating it." (Tape 22)

Tlingit people have special regard for their traditional foods, partially because theirs is a direct connection with the living things that provide the food. Mr. Katasse emphasizes this:

"A well-bred Tlingit is never heard making remarks about food put before him. People refrain from making sarcastic remarks in jest about food. For example, a short story is told about a young princess saying, 'I do not eat this part of dried salmon—too bony.' News of this got around the village and people became indifferent to her. Soon a famine set in and she became hungry along with the others." (Tape 24)

As indicated in the above passage, lean years were not unknown to the Tlingit. The changing seasons were probably the most common source of variation in food resource abundance and availability. Autumn was the time of harvest, and the shortening days were busily spent in preparation of the winter's food supply. This time is described by George Jim:

"In September, October, and November, it is the time of contentment and happiness among the Tlingit people, for it is harvest time. Deer, goat, sheep, bear, king salmon, herrings, every species of salmon is fat, ready to be harvested, and plentiful. Streams are full of fish and gardens ready to fill the chat'l [storehouses or caches]. This is when men bring the bright salmon to the women to cut up and prepare the first stages of smoking and drying. This is also when loose eggs are collected . . ."[2]

Following the putting up of winter stores, the people drew on their underground caches to replenish their supplies. Sometimes these ran low in late winter or early spring as Walter Williams tells us:

"Times could be rough for my people in the early spring. If you are inclined to be lazy you go hungry. Everyone has to keep busy—what it amounts to is struggling for survival. Your winter supply of dry fish is gone, the weather is bad, and your entire food supply is pretty low. You have to replenish it by going out and getting your family going . . . (Tape 6)

The traditional Tlingit values of hard work and economic self-sufficiency were highlighted by several of our cultural specialists. It was

customary in times past, to accumulate large surpluses of food and other property to redistribute at potlatches or to trade with neighboring tribes. Social status was accorded to those members of the community who were industrious and who had high ambitions. These values were passed down to children from their elders. In the matrilineal society of the Tlingit, it was the uncle, usually mother's brother, who taught these values to a growing boy. John Jackson was one person who grew up within this tradition, and his narrative illustrates how traditional values were shaped to accommodate the changing economy:

4. John C. Jackson and Matthew Fred in Kake, 10/13/83.

"I lived with my uncle for several years, and I recall his advice many, many times. His were wise words and they were handed down to me. He would say time and time again, not only when necessary, but to remind me I think, 'if you work only for money you will never keep it, but if you divide your time equally gathering food, your money will be saved. If you worked on food and put aside a portion of whatever you put up, soon this will add up. The time will come when you will feel you have enough to take to another town and exchange it with whatever you feel is a good exchange. This way you will be surprised at how much you will gain in no time.'

Maybe there will be moments when you will be offered fur and you will take it because this adds up in a hurry. It is surprising what food will bring and once you realize this, you will continue to work on subsistence living. This is important, I sometimes wonder if it does not actually become more important than working for money. Times and methods may have changed but this applies fundamentally to any young life." (Tape 6)

Subsistence food retained its importance even to those individuals who chose to work for wages. People in the villages persisted in the traditional subsistence quest and might trade with those Tlingit living in the larger towns. For instance, dried fish and meat were transported to Juneau and traded with the Tlingit people working in the mines.

Numerous forces were acting in ways to irreversibly change the subsistence lifeway. One of these was the declining use of the Tlingit language. Children were discouraged to speak Tlingit by missionaries, teachers, and in some cases by parents anxious for their offspring to learn survival skills in the English-speaking world. Ruby Jackson explained the course of her language training:

5. Ruby Jackson, October, 1983.

"My mother was a full-blooded Tlingit woman and my father was half Russian and half German. He told my mother when we were small children that he did not want us to speak the Tlingit language until we could handle the English language. I was away from Tlingit kids as we lived at my uncle's store in Angoon as a child . . . so we were not allowed to talk our mother tongue until I was around five years old, when we moved to Killisnoo from Angoon. I was playing with children and learned how to speak the Tlingit language. My dad insisted to learn to think in English before we spoke another language. To this day, when I hear Tlingit spoken, it registers in English in my mind and I have to translate it into the Tlingit language."[3]

Dick Newton's own background is somewhat different, he thinks in Tlingit and must reconstruct his sentences from the Tlingit to the English. Most of our cultural specialists consider Tlingit to be their first language, and we recognize this as an outstanding attribute of their testimony. Regrettably, the language is rarely being transmitted to the young people in the traditional fashion.

[3] Transcription of English translation of interview with Ruby Jackson by Richard Newton.

6. George Davis in Angoon, 10/20/83.

Other forces have restricted the practice of traditional subsistence; many types of laws and regulations have dictated everything from mandatory attendance at school during fishing season, to restrictions on hunting.

George Davis describes how trapping was regulated earlier in this century:

"Trapping for the beaver was closed in 1916; 1921 it was opened again. After it was opened up for that one year it closed again and re-opened in 1927. This is what they have done to us, we have neglected our trapping shelters. While the trapping was closed, our cabins rotted away. This is what happened to us through the regulations of the game department. This is how we lost our trapping area." (Tape 18)

Today, both the state and federal government are attempting to alter their policies to accommodate subsistence, but this has been a fairly recent development.

Many of the subsistence techniques you will read about in this book probably took centuries to perfect. However, the technology is only one aspect of Tlingit subsistence—it must be placed within the cultural context in which it developed and in which it is employed today. For instance, as in many other cultures, the social component of eating was and continues to be very important to the Tlingit. John Jackson describes two clans who had been at war:

"These people had been enemies for a long time. By getting them together, eating together, watching other people laugh—eventually this will let them forget their mountain of problems." (Tape 4)

Special occasions are often celebrated by potlatches which are more commonly referred to as "parties" today. These events might take place to validate honorific names given to individuals or to commemorate death. Traditionally there was a highly formalized way of serving various foods with each attending person following prescribed patterns of behavior. Furthermore, the ceremonial importance of food was enhanced in the way it was presented—in the beautifully carved feast dishes and exquisitely woven baskets.

Guests left with full stomachs and with baskets and boxes of food and other goods given away as gifts. Customs have changed, but today the hosting clan still expends a sizeable cooperative effort in preparation of a potlatch, and guests leave satiated.

It was the highly developed technology of food preservation and storage that guaranteed survival and permitted such elaboration of social and ceremonial aspects of culture. Certainly, all aboriginal groups in North America evolved successful adaptations to their environment. However, the Tlingit, as well as other Northwest Coast tribes, were able to bring about a level of cultural development that surpassed the typical hunter-gatherer mode. The degree of social, ritualistic, and artistic sophistication and complexity of Northwest Coast culture is widely recognized. In the following pages you will learn of some of the techniques that made it all possible.

Native Foods Gifts of Season, Gifts of Place

7. Jimmie and Lydia George in Angoon, October, 1983.

Fish

Fishing was of utmost economic importance to the Tlingit. The products of the hard work at fall dry fish camps sustained the Tlingit people through the long, wet winters of Southeast Alaska. Dry fish were critical to survival, and members of the extended family worked long hours to put up the winter's supply. Each family group or clan had their own salmon stream, and fish camps were located nearby. The Tlingit people held special regard for the fish and this is expressed by Lydia George:

"One person was delegated to be responsible for the fish. Every day, he watched the ocean beach for fish jumps and kept track of all movements of the fish. No one was allowed to kill fish before they came upstream to spawn, they believed if the fish was bothered and disturbed during their migration upstream to spawn, they would turn back and go up another river. Since fish was our main food, we were very careful; the fish were treated well. If a man broke any of our laws, his fishing equipment was taken from him; sometimes his spear was broken up."[4]

There were many different ways to fish for salmon and detailed descriptions can be found elsewhere (Stewart 1977, Krause 1956, and others). One common way was gaffing. Matilda Gamble related to Madonna:

"They used gaff hooks—a real long flexible pole and they made their own hooks. You could stand in the river and as the fish are going up or maybe coming down you could just gaff them and get 30-40 in about a half hour. I remember I'd go up the creek with my aunt and my brothers and I used to gaff them—it's not that hard." (Tape 11)

Fishing with a bone gorge was described to John C. Jackson by his grandfather:

"The bone was called 'nuta' and was about four or five inches long and sharp on both ends, and the diameter was just enough to hold without wrestling with it but strong enough to realize that it will break. To the middle of it was tied this leather. This is used for catching king salmon—there will be moments when you want to catch king salmon. Of course in those days they were hard to get a hold of, but people have known all along how good king salmon meat is; it was superior to all fish. You put this into a herring and put a weight on top and put the bone inside, then let it out four or five feet, maybe six feet at the most but no more. Then you tie it onto the inflated stomach of a seal, then watch carefully and wait patiently and then you see the king salmon jumping all over the place. All of a sudden the buoy starts moving and you know what has happened. Actually what happens is, it kills them, it gets inside the stomach and tightens up and the bone gets in sideways and penetrates the stomach inside. Then they float up to the surface. This is the way they would catch the king salmon a long time ago." (Tape 6)

The most popular topic of all our Tlingit cultural specialists was how to make good dry fish. Although the basic process is the same, each individual gave special details from their own experiences. All the versions will be presented in their complete form in order to preserve each person's helpful hints in their distinctive context.

Here is Dick Newton's comprehensive discussion:

"Dried salmon—king, sockeye, coho, and dog—has been a staple

[4] Lydia George ms. on file, Admiralty Island National Monument, Juneau, Alaska.

commodity the Tlingit people have depended upon for generations. It is part of the diet for the old, and has become part of the diet for the young. To be successful in drying fish involves patience, long hours in preparation and work. Today, no one seems to mind paying $12.00 for one dried fish. Everyone has their favorite technique for drying fish.

"Once the fish is caught, remove its head immediately. With the tail closest you, cut open the fish from the anus to the end of the neck and remove the viscera from the abdominal cavity. Scrape the blood with a spoon or a clam shell and remove the fins, if desired. Slicing and filleting salmon requires skillful hands and very sharp knives. Only a few men have mastered this art, so the women do the intricate slicing while the men bring down the fish and return the finished product so cautiously back on the racks. The time for slicing and filleting should take two or two and one-half days. You cut the fish along the backbone as if filleting. You cut the backbone close to the tail, but leave the tail attached for balance when it is hung on the pole in the smokehouse. The purpose of slicing is to get the salmon thin enough for drying. Sometimes the salmon is large and thick—choice pieces the Tlingit calls yawaxeci'. These strips dry to about two inches wide, twelve inches long, and three-eights an inch thick. When partially dried this is called nàyadi, also a delicacy. After the fish is sliced, you dip it in brine or soak it in brine for whatever length of time is suited to the family's taste—usually five to ten minutes. Salmon should be hung immediately after this, with the flesh side against the pole.

"The amount of heat and smoke is closely controlled to prevent what the Tlingits call 'cooking the fish.' If this happens, they either start the process all over again or end up with no salmon at all. If there is not enough heat, the salmon spoils quickly and has to be thrown away. Dry hemlock and green alder are the woods preferred. The gunyíkyadé [smoke spreading board] is used to control the heat and the circulation of smoke so it will distribute evenly and prevent direct heat. This is the critical stage. Salmon is constantly being rotated at the end of the day when the fire is out to prevent the moist area from putrefying. Regulated alder smoke will glaze the salmon smoky red in color which indicates the meat has reached the desired consistency.

8. Mathilda Gamble preparing halibut for the smokehouse, 6/19/80.

"Keep a good watch to see if the salmon is dry enough to put on a sus'—which is threading the fish on a stick in groups of twenty to twenty-five. The sus' is placed away from direct heat, usually near the rafters, quite high and off to the sides for about five or more days, or until completely dry. If salmon is not thoroughly dried, there is a tendency of spoiling and molding before early spring when the dried fish may be most needed.

"For storage, the most important thing is to keep the air away from the meat. Before packing, fold the meat so all the bones are neatly inside a compact bundle. Some people use garbage bags and pack twenty-five fish in each bag and close it tightly. These bags are then placed in a tight box to be stored in a cache." (Tape 5)

John C. Jackson emphasizes the importance of using the later runs of salmon, those of the fall:

"You never smoke and dry the first run in the river and creeks, it is better to wait until they have spawned. If salmon is smoked when it is oily, it turns rancid before winter and spring when it is

needed. Color of the flesh on the fish turns light, almost white when it is ready to be harvested and prepared for the smokehouses. This gives the salmon a chance to lay their eggs and run through the cycle for the following years, when the mature fish will return to the creeks. Make boxes out of yellow cedar bark, then pile the salmon neatly in these dry boxes. Cedar bark is known to keep the salmon from getting moldy. Dirt caches were prepared in advance and this is where the salmon was kept until it was needed." (Tape 4)

Josephine Paul describes her experiences at dry fish camp with her grandparents:

"I am going to speak on dry fish, how you put them up and how you avoid having it turn tough, that is, 'it chews like a board'—however a board is chewed! My grandparents, whose names are Kyaku and Katooch, used to go to this place called Salt Lake. It was a designated place for them a long, long, time ago where they planted their garden, dug clams, trapped and dried salmon. Also, they had their cache there where they put up their food during winter months. There were only two places right around that area they would get their salmon from, one was Port Camden and the other Security Bay. Security Bay was quite a ways to go but they liked the fall dog salmon there, which were known for making better dried fish.

"The salmon were smoked for three or four days. Before breakfast my grandparents would get all the salmon down in the smokehouse. I remember being awakened early to get to work. They would lay the fish out with a clean canvas and my job was to stomp on top of that fish. The object was two-fold, to make it soft and supple and to straighten it out so it doesn't take up too much room when you're ready to pack it, it's nice and flat. We had to go through 100-150 fish! Then they'd put them on sus' in groups of twenty-five and put back in corners of the smokehouse. Then we'd go to the other house where we had our living quarters and we'd have our breakfast.

"It's important to place sus' away from the center of the smokehouse, off to the side away from the gunyíkyadé [smoke spreading board]. They will remain here for another two weeks or so when it is finally dried and smoked it is packed away in large tight boxes [which are put into the cache]." (Tape 6)

Henry Katasse has his own special way of preparing the fish, as described below:

"One successful way of getting good dried salmon was to soak them in a creek after cutting the heads off and cleaning the viscera. They are left overnight in the creek, and taken out the following morning to complete butchering. They are never washed again but hung outside so the slime drains from the salmon. Then they are taken to the smokehouse.

"After a day of fire under the fish, the salmon is ready to be taken down and given to the womenfolk who are ready to cut and trim them. This is called 'cutdut'k̲usx'—the process of thinning the salmon for easier drying. They are put back on the racks again, and the fire man is very careful to see that there is just the right amount of smoke, and the right amount of heat under the fish. At this time gunyíkyadé is hung right up above the fire and its purpose is to keep the heat away from the center of the smokehouse and distribute it evenly. The hemlock wood used for smoking was carefully chosen and the fire is carefully watched. Be careful to create mostly smoke by keeping the draft down. This determines the degree of success that you have with your dried fish.

"The next step was to get the fish down from where they are hung in the smokehouse. Fish are laid, one on top of the other, on a clean canvas. As children, we were told to jump up and down on the fish, the reason for jumping is 'x̲oon yux googwatee' meaning 'the salmon will be soft as decayed wood.' It will disintegrate with little effort while chewing. Then the fish are needled on a stick in groups of twenty to twenty-five, about one and one-half inch apart, then hung up for a final drying, away from direct heat. The fire may be intense or small—as long as it continues to keep dampness away and no fish bones are burned, which might make the fish taste strong. The old timers took a great deal of pride in how they put up their dried salmon." (Tape 24)

Knowledge of particular techniques was only part of the process; it was crucial for the family to effectively work together. Billy James illustrates the cooperative effort:

"The purpose of going over to Port Camden was mainly to smoke and dry fall dog salmon. This would be the last part of September and October. It entails a lot of preparation: repairing the smokehouse, getting the tables ready where the fish is going to be cut, poles to cut and the general clean-up around the smokehouse—because it's going to hold five hundred fish and everything has to be in order so that there would be no hitches. At last the day arrived when all the men go to the head of the bay and get a load of fish. Everyone is up early that day, and after they bring in the fish it was time for all hands to go to work. The girls usually do the fancy cutting of the salmon. Men are doing all the foot work, some are cutting off salmon heads, etc.

9. Josephine Paul at her woodpile, Kake, 10/13/83.

"I had two sisters that were married plus their husbands and there were five of us. There were a total of ten of us that made a team. The work would continue until the job was finished, which was usually quite late at night, even with all the ten people working. You have to remember that we were working from scratch on 500 fish.

"The smokehouse is quite large so the fish had to be relayed so they could be hung on poles. There is usually a man standing at the bottom, another above him, and perhaps another person at the very top, when it comes time for hanging the salmon for smoking. An assembly line was organized in relaying the salmon where they would be smoked and dried.

"My father would boss the whole procedure. He stood at the bottom and gave commands, salmon was passed from one person all the way up to the top person, who would hang them on the poles methodically. We saved the heads, even the viscera, separated them onto a different container. I will tell you why we saved the heads and why we saved the viscera and nothing was wasted.

"After all the fish were hung in place, it was up to my father, because he was supposed to be an expert on exactly how much fire and heat it required at this time. It is critical at the beginning of the smoking period as to the amount of smoke and how much heat it will have, so we would leave him to it. Now all the other men would go out on the trolling boat, we had a trolling boat at that time, to get wood. We used alder, and we would load the boat down with alder to be unloaded and packed up to the smokehouse. It was a lot of work; fortunately, we were all young people and we thought it was a lot of fun. A boat load of wood is usually enough to smoke the salmon, heating and cooking. It was not only salmon that we were smoking, but venison meat, and anything like mallards and

geese that we could put aside for the winter. You must remember that the only way that we could gather the wood was not with a chainsaw, but chopping them. You have to chop them in lengths, so that it would be easy to carry. We didn't bother with the little ones, but the good sized ones are what was used for smoking.

"There are various methods of preparing fish. Male and female fish were cut up different ways. On the second day, fish were all taken down and the women took their respective places and the cutting began on the fish. This time it was to cut the salmon thinner for easier drying. Racks are built for the womenfolk, knives had to be very sharp. Men took back the fish and carefully hung them one by one back on the poles with flesh side up. This being completed, the fire was once again rebuilt, and an additional fire was built a few feet away. A couple of makeshift boards are made, I would say about three feet by five feet, each hung on top of the fire, and the purpose was to distribute the heat and smoke evenly to all corners of the smokehouse.

"Some people prefer nàyadi and the only way that you can preserve it is by salting or freezing it. Nàyadi is half-dried, smoked salmon. In the first place, these people, especially the married couple, would have their own fish identified a certain way. My father would be the person delegated, again, to pack them in barrels, butter kegs mostly, or 15-gallon kegs, and he would pack them and one of my brothers would help him put the salt in between. This is how he would salt the nàyadi for the winter. When the winter time finally arrives, you just take whatever is needed and take the salt out of it and wash it out thoroughly and it's ready for cooking. You may cook the fish by boiling it, usually with potatoes, or cook the potatoes separately. This is one way the fish is served—it is called nàyadi.

"Like everything else, there are many techniques for fish drying. After smoking for a number of days there comes a time, after inspection, to put the fish through sticks. These are called sus' and everyone is kept busy putting the fish on long sticks, I would say about twenty to twenty-five fish on each stick. Then they are placed away from the middle of the heat, over to the side. Occasionally a person goes up there and brings one down for father's inspection, and he would then say, 'Okay, fine; that is good enough, it is ready to be packed.' It is time to put them away and everybody gets excited because they are going back to town.

"Depending upon the humidity outside, sometimes I remember when we'd put a canvas on top of the dried fish and pile them up. There's usually another person ready to walk on top, stomp on top, whatever, just marking time, using their whole weight. This, of course, is to get it nice and soft, not getting it too brittle. It took alot of work just doing this. A good soft, supple, dry fish does not come by accident; you have to work hard at it in order to produce a delectable dried fish!

"Dried fish is called átx̲èci in Tlingit. It is nice and soft, flaky for easy chewing. I almost forgot to mention the heads and the viscera were thrown aside and separated. The viscera, of course, were the fish eggs which were taken out and processed into something else. Some of them were cooked and put into jars for the winter. The fish heads were buried, literally buried, in the ground, where the tide comes in and out. And the way to do it is to dig a great big hole half way down where the tide goes in and out and bury all the fish heads, packed in gunny sacks. We lined it with grass—skunk cabbage is put on top—then it's covered with the large gravel and rocks

and forget about it for awhile. It was really like pickling a salmon—only we let nature do that—it stays there while the tide comes in and out for a couple of weeks. And, then, of course, it's well pickled.

"I guess we took advantage of our younger brother—we nicknamed him Charlie Chicken. We would say to him, 'Okay, Charlie Chicken, you get the shovel and start shoveling away and cover the heads.' He never complained, he was always right there, energetic and full of vinegar. After he dug it up, we would take it down to the beach and wash every one of them. The only thing saved were the noses, what the Tlingit call the noses. We cut them out and washed them in salt water; then put them in barrels and take them over to Kake. I think some of it was sold, some of it was given away to friends.

"One season, I recalled, we dried one thousand salmon and that took a lot of work, as there was only my mother and May, my sister, to do the intricate finishing cutting on the salmon. We worked late hours that night until the job was completed and had to use lanterns. Another thing I remembered that year was the load the little troller had to carry in order to get everything packed in the hatch, on deck, and wherever we could find space to fit them in. It was loaded down to the guards for there was a lot of food for a small boat to carry. This was the way of life in those days, no laws to dictate saying, you may only take so much. This was what our people enjoyed for hundreds of years. One thousand fish was a lot of fish even then, but it also gives everyone satisfaction and security as most of the food may be exchanged for staples, such as potatoes and other items not available otherwise. Some were exchanged for money and this, in turn, was spent for staples, like flour, coffee, etc. This was subsistence living as I remembered, that was a very good year."
(Tape 22)

10. William and Martha James in Kake 10/13/83.

There are many ways to cook salmon, Billy James has already described the way to prepare xat shàyeè (fish heads). Dick Newton gives us some ideas as to how to serve dried salmon:

"Nàyadi [partially dried salmon] can be boiled with half-dried and smoked venison ribs and new potatoes. This is a luxury that can only be enjoyed in the fall at fish drying time. Átx̲èci may be enjoyed just the way it is, dipped in seal oil, herring oil, or eulachon oil, whatever oil is preferred. The fish is roasted over an open fire or in an oven with varied degrees depending on how oily the fish is. It may be soaked in cold salt water for three days before cooking. This process is called tee yee. In cooking, it must come to a boil only for about a minute. Potatoes are usually served with the fish prepared in any of the ways mentioned above. This is normally followed by cooking seaweed with fresh clams and topped off with your favorite berries which are ordinarily put up for the winter's use."[5]

Fresh salmon is a delicacy all Southeast Alaskans enjoy. Dick himself is well known as a master chef of oot'l kèe, commonly called "boiled fish." Apparently, certain people specialized in cooking this traditional dish. George Dalton is another man who has perfected this technique:

"Everyone agrees that if you boil fish over an open fire and let the smoke flavor the fish in the pot it is good. When you gaff a salmon, break its neck and bleed it while it is still alive. This is called tla'tuch. Clean the guts of that salmon immediately and cut the meat from the skin side vertically, with the ribs of the salmon, in pieces about two inches wide. Boil it in a cast iron pot over very hot coals. Add two to three tablespoons of seal oil. The color will turn creamy

[5] Richard Newton ms. on file, Admiralty Island National Monument, Juneau, Alaska.

white and it should begin to thicken. When you boil it, it shouldn't cook long, maybe only ten minutes." (Tape 16)

Dick adds that "while he was telling me, it was making his mouth water and he could taste the oot'l kèe." George finishes his story by telling us that:

"The juice left over from the boiled fish is saved in a crock and the next day when a friend comes to visit you can prepare a specialty dish. Heat a round rock and drop it in the juice. Cook salmon eggs and add it to the juice. Add lak̲'úsk [seaweed] and it's ready to serve. The hot rock gives an unusual flavor." (Ibid)

Another traditional means of cooking fresh salmon is uh gag gux̲ dus xoo or "cooking in the ground." George Jim gave us this recipe for barbequed salmon:

"Dig a pit in a sandy area about two feet deep; width should be determined by the amount of fish cooked. Line the pit with rocks and cover these with round pebbles that will not crack. Build a hot fire to heat the rocks and pebbles. Meanwhile, gather a large amount of ferns and skunk cabbage for lining the pit. As soon as the rocks get red hot, clear aside the fire and coals. Cover the hot rocks with ferns, on top of the ferns start laying the skunk cabbage as quickly as possible. Arrange the ready salted and peppered salmon, onion, and whatever flavoring desired and cover with fresh cabbage and fold the sides on top. Then shovel sand back on the top—about two to two and one-half inches, and build an intense fire on top. Two hours for salmon, three to four hours for meat. Meat should separate from the ribs and the salmon should be moist and juicy. Knowing the right size for the coals and length of cooking time will separate a fry cook from a gourmet chef."[6]

Other parts of the salmon were prepared as foods. Billy James considers salmon eggs to be one of the two best foods he knows:

"You put a whole cluster of salmon eggs in this great big pot and separate the eggs so they become individual eggs. You wash them up real good and leave it in fresh water overnight. They turn white and hard if you leave them in there for about twelve to sixteen hours and the Tlingit call them x̲oo ka ewoo. Then it is put into fresh water and set aside in jar containers or crocks, something that's not metallic. It is one of the two best foods I know. When we returned home, only very little was put up for the winter, because most of them were bought over at Kake. People like it, especially when they're nice and fresh like that. People enjoy it as cocktail, one does not require too much, maybe just a dishful, preferably a dessert dish, would be sufficient. Someone said it gets rid of worms and is good for the body system. If it's prepared properly, people have lived to eat it for hundreds of years. If you don't know how to do it properly—if you prepare it in a metal container—botulism may result. It has been handed down from a long way back—what they used were the wooden containers long before crockery and before glass came on the market." (Tape 22)

Additional details on the preparation of salmon eggs follow; this statement represents a collaboration between George Jim and Dick:

"Loose salmon eggs are collected and washed many times over to get rid of the slime then left overnight in fresh water. You might want to cook a few fresh salmon eggs and mix them with the rest—this is called x̲oo ka ewoo. Gather hemlock branches and dump the eggs in a cool place overnight, then place in a crock or glass container and cover loosely. This should age from ten to fourteen days.

[6] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

When ready to serve, add fresh water—especially for cheechakos—and serve fresh potatoes, before the main course at dinner. Good eggs should not be chewy, but evasive and when chewed—hard to break up in your mouth."[7]

Other types of fish were important subsistence foods, especially in seasons when the salmon were not running. John Jackson explains how the Tlingit utilized halibut, and how they insured the availability of halibut in the future:

"In the spring when food was running low, it was time to go to catch halibut. You only caught the large halibut and left the chicken halibut as there have always been many of them. The reason for not catching the small halibut was obvious—they were using Tlingit halibut hooks guaged only to hook the large halibut. For the small halibut, the mouths were too small; if it was large enough to take the bait in, the barb is too far apart to hold the fish and it usually gets away. Today, this is not being practiced, commercial fishermen pick up and kill all sizes with their hooks, not giving the halibut a chance to grow and seed." (Tape 4)

John Jackson's account includes other strategies used in halibut fishing:

"A long time ago if you wanted the halibut to die right away when it was caught, you enlarged the bait. This forces the mouth to remain open and eventually the halibut will drown. The reason you want it to die is obvious, you want to land it much faster and easier when you catch a large one. You always carried a spear. Ordinarily, halibut are hard to kill and may become dangerous, so when the spear is used it takes away alot of worry—so they carry the spear with them on their canoe at all times, even for halibut fishing. After the halibut is caught and killed, it is then towed ashore. They usually catch large halibut, not the undersized ones of six to ten pounds that the people are catching today." (Ibid)

Henry Katasse describes how the Tlingit used the halibut when they are in prime condition:

"March and April are the months when the Tlingit go after halibut. A good dried halibut is light in color, and winter halibut makes the best. Halibut caught in the summer, by contrast, always turn dark on the flesh side and they don't make very good dried fish. Halibut is dried the same way as salmon . . . Red snappers are dried and, according to most people, it is the only dried fish that surpasses halibut." (Tape 24)

George Dalton mentions a novel way of cooking fresh halibut:

"Tlingit cooked even fins, tail, and head of halibut; the head was cooked with wild currant plant tips and it made a delicious dish." (Tape 16)

Detailing some other uses of halibut, George Davis tells us:

"If one is fortunate enough to be near a fresh halibut at the time of a burn, apply a thin slice on the burn until it heals. Hardly any scars will show after the medication has been removed."(Tape 17)

Another use of halibut included the manufacture of containers from the skin. The Daltons recount this story:

"Many years ago, the Russians found a bag made of a large dried halibut skin at Lituya Bay. It was sealed tight, floating in the ocean with food inside still kept dry." (Tape 16)

[7] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

Another fish important during late winter was Pacific gray cod. Henry Katasse explains:

"Now for a bit on Pacific gray cod. It could be the most delectable smoked dried fish to have, by way of a change. We were living in Saginaw Bay—we were kids running around on the beaches and covering all over the territory. They told us that there was a gray cod bank at the entrance of the bay and one day my father came ashore with a row boat loaded with gray cod. My grandfolks went down with sharp knives and proceeded to cut the heads off and open the cod lengthwise, alongside the backbone from the back until the knife reached the viscera and gutted and washed them. We, as children, put them in containers and hauled them up; it wasn't very heavy, but there were two of us that hauled it above the tidewater line. We dug an indentation about six inches deep. Others were bringing hemlock branches, and lining this shallow area with hemlock branches. We hauled the fish and laid them close together on top of the branches, flesh down toward the branches. When the area was filled, another layer of branches was thrown on top of the other and another layer of cod went on top, etc., until the cod were all gone. The final stages were to cover the last layer of fish with a thick layer of branches so it will get some air. We would cover it and leave it for four days and three nights. In the meantime, preparation was being made in the smokehouse. Others were cutting wood and everyone was busy on assigned details. Before they are hung in the rack in the smokehouse, sticks are put through the flesh of the fish crosswise, to keep it from bending or swerving. After it is dried, they cut a hole near the tail and hang them upside down in the smokehouse. The reason for going to all the trouble of getting hemlock boughs was to get rid of the worms inside the flesh of the cod. Contrary to what people say, it's a known fact that gray cod, the Pacific cod, do have worms. You must remember that this is in the month of March and April. The branches acted as a poultice in getting the worms out which were not visible at the time. We were told to shake them off before taking them to the smokehouse. The way to prepare for cooking is to soak the smoked cod until it becomes soft enough to cook with boiled, fresh seal fat and boiled potatoes. The smoked dried cod, is then served, and fit for a king's table. These are just some of the ways in which a Tlingit has learned about subsistence living." (Tape 24)

Herring were obtained during different times of the year. In the spring the herring spawn on kelp and hemlock branches that people lay in the intertidal zone. Henry Katasse describes the spring spawn:

"Seagulls are watched and listened to because they forecast the news. When it is close to herring spawning time, the Tlingit listen for the announcement from the seagulls. The sound of their call changes . . . perhaps from eating all the herring eggs. Sure enough, herring is coming, getting ready to spawn. Men get ready to harvest herring eggs on branches, seaweed, or whatever they prefer." (Ibid)

In the fall, the fish are best for their oil. A herring rake was used to gather literally thousands of herring from which oil was rendered. George Davis explains:

"Herring rakes—iron spikes were used, before that, bird bone points, about one inch long on a rake 40 inches long. First the bone was tempered in fire; it is heated with a tong, then it is cooled in grease and heated up again. Then you grind the point until it is really sharp, then it becomes hard. The pitch of old-growing spruce is used to bind points onto the rake, it's stonger than glue, like cement."[8]

[8] Transcription of interview with George Davis by Madonna Moss.

George went on to relate that people came all the way from Hoonah and Sitka to set up camp and fish for herring in Mitchell Bay and Favorite Bay. The mash left over from the oil was used to fertilize the gardens. Mr. Katasse remembers what it was like for his family during the autumn herring fishing time:

"We were small kids when the family moved to Union Bay. I distinctly remember raking herrings into a canoe until it was loaded down. They were rendered down over an open fire with everyone working . . . We kids were running around the canoe with herring in it. Late in the afternoon, we were each given a cracker, pilot bread as some people call it, and we put some herring on it. After it was rendered down, it was so crisp and tasty—after all we had been playing all day. We had a great big pot of herring mash; it was hot and good tasting—all you could eat. Later in the fall, they did some trading of herring oil for smiling berries [saskatoons]."(Tape 24)

Game

Gowukàn, the Sitka black-tailed deer, was the most important land mammal hunted by the Tlingit. This variety of deer migrated into Southeast Alaska several thousand years ago, probably from southern British Columbia. Like other subsistence foods, the Tlingits will tell you that they have been obtained since "time immemorial." Our cultural specialists agree that fall was the time of the deer hunt. Henry Katasse explains why:

"In the month of September, deer meat is at its prime . . . later, in November, the deer loses some of its fat and this was the time to smoke and dry them for winter. They used the skins for clothing and footwear to keep warm in the winter. During the fall of the year, the hide is thicker; you can make soles out of the hide from the neck area." (Tape 24)

Chester James described some specific skills employed in deer hunting. He learned how to use a deer call from Billy Grant, an outstanding deer hunter. Chester emphasizes that one should:

"Try to get a clear tone—no vibration sound. The sound should be straight, like a true note. Listen to it every chance you get. Memorize the tone of quality." (Tape 7)

11. Chester James at Mt. Edgecumbe Hospital in Sitka, 10/17/83.

Chester enjoys calling deer and describes times when more than one deer came running towards him as fast as they could. He also recommends that when butchering a deer for packing, it is important to sever the ribs, but not to disconnect them entirely. This serves to distribute the weight evenly over your back.

George Jim's account includes a highly recommeded "cook-out for hunters";

"Around the first part of September men prefer to climb mountains in order to obtain their venison. The deer feed on deer cabbage or deer lettuce and other favorite foods which are still unknown to men. According to the Tlingit, the meat is at its best at this time. So men climb the mountains, usually in groups, and make a picnic of it. They get the deer and each person is assured of all the meat he can pack down to the beach, whether he shoots one deer or not. So before they get down to the timberline, they pick a scenic spot, build a fire, and pool their lunch together. It usually consists of bread, crackers, and jam. Someone takes the tripe from a buck as they are thick and heavy. Hearts, tongues, kidneys, back-strap meats, and fat are all washed nice and clean. Before the fire is built, a pit is

12. George Jim and Charlie Joseph in Angoon, October, 1983.

dug big enough for the meat to fit in. Cut four small posts and shape the top of each stick with a "V" cut to hold up the edges of the tripe. Turn the tripe inside out and put the inner organs and meat inside the tripe. Hook it to the posts and place it in the hot pit. A container of water and heated pebbles should be ready. With home-made prongs, pick up a heated pebble and quickly dip it in the water and drop inside the bag. If pebbles are not dipped they crack or disintegrate in the food. It should be cooked in twenty to thirty minutes, and is usually served on large clean leaves. Someone else makes coffee or tea and ice cream by mixing milk and sugar or jam in snow. Usually the picnic is brief and there is gaiety and laughter before the hard work of packing begins." [9]

Fresh deer meat can be prepared by uh gag gux̲ dus xoo (cooking in the ground) just like salmon. In addition, John C. Jackson suggests that the cook add:

"Pieces of seal fat in between the meat. This serves as basting and keeps it nice and moist." (Tape 7)

George Jim's barbequed venison involves roasting over an open fire. His instructions follow:

"Build a hot fire. Cut a green stick about three and one-half feet long, and sharpen both ends. Insert one end of the stick in the ground, far enough from the flames so the meat will not be burned, but close enough to cook. Choose a rib cage covered with fat and cut holes between the ribs about eight inches apart. Do not cut a hole at the end of the ribs; this will prevent them from sliding down the stick during cooking. These days, salt and pepper would be rubbed into the ribs, but such refinements were not available to the old-timers. Take the ribs and hold them briefly over the flame to seal in the juices. Then thread the ribs on the stick. Baste them with fresh seal oil frequently to keep from drying out and turn them every little while. In about an hour, the ribs will be brown, delicious and ready to eat." [10]

A more unusual Tlingit specialty is described by Billy James:

"Another thing I should tell you about is the head of the venison, another special treat. They are singed over an open fire. Later, we graduated to what we used to call a blow torch, in order to get all the hair off the head. It took quite awhile, but it's worth it, because everyone considers it a delicacy. All the hair is burned off from it, then we took it down to the beach to the salt water and just scraped it nice and clean until it is washed white. There is a way of cutting the top of the head with a hatchet, making a cross, actually breaking the skull and then it was put in a large pot. It took over a couple of hours to cook it. This is good—the brains, everything is edible, there was very little wasted." (Tape 22)

A few people pointed out some of the particular techniques used in smoking and drying deer meat for winter use. George Jim advises:

"For winter use there are a few things to remember from daily use of meat. Slice meat only one-half inch thick. Smoke with alder wood and tips. Pour over it fresh seal oil, making certain the meat is covered, then add an inch or so more. In a cool crock, it should keep for a year or more." [11]

William James describes how he learned certain techniques from his father:

"There's a different method of smoking meat, it required a lot of

[9] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

[10] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

[11] Ibid.

heat and smoke from the very beginning. Sometimes, when I looked at the meat it appeared that my father was overdoing it, as if it was going to burn. But that's exactly the way he wanted it. He would build a good sized fire and then let it die down; the process was slow from that time on. When it's time to cook the meat they used a great big pot. I don't know how they got a hold of this pot but there were quite a few of them around Kake which were taken out to camps—I suppose the Russians brought them. They used them for rendering seal oil and for cooking other things such as smoked meat in large quantities. Everyone started cutting meat, and placing it in the pot. They used sea water, almost half and half with fresh water, and this was the way they cooked it. Sticks were put right through the meat and then they'd put them up to dry. The object was to get it completely dried so it never got moldy. If there's a little dampness on the outside of the meat, well, all that work went for nothing, so one has to watch it. The meat is then put in large containers, then filled up with seal oil to preserve it. During the winter months, you just take out amount needed and it makes a delectable meal—I'll vouch for it.

"Seal meat is done exactly the same way as venison. Seal meat is cooked after it has been smoked, and dried on the outside after it's been cooked. Before putting it into a container it is separated from the venison and marked. You know exactly which has the venison and which has the seal meat. During the winter months, you may have whatever your little heart desires." (Tape 22)

As indicated by Billy James, seals were important subsistence resources, for their meat (eaten fresh or preserved for winter use), for their oil, and for their hides (used to make garments). George Jim instructs the hunter to:

"Choose a yearling for winter use. Butcher, bleed, and wash the blood thoroughly. Prepare like a roast pig and singe the hair and scrape. Cut it up in large pieces for smoking. When it is cooked, cut it up in smaller pieces and add cold water. Start squeezing the blood out of the meat with a hefty piece of wood. Have your alder tips ready for flavoring—cut about two inches long. Soon as it begins to boil, add your flavoring: tips, onions, salt, and pepper." [12]

Another way to smoke seal meat is described by Albert Wallace:

"You cut it real thin, just like this beef jerky you buy. It's exactly the same thing, in fact it tastes much better. You take the meat, slice it real thin, then you fry it in its own oil.

"You would half fry it—then you hang it up and smoke it for two days. Then you put it in a container, fill it up with seal oil. It's good for one to two years. Anytime you get hungry, you just take some meat out of it and chew on it. Oh, it's delicious—I like it, myself." (Tape 14)

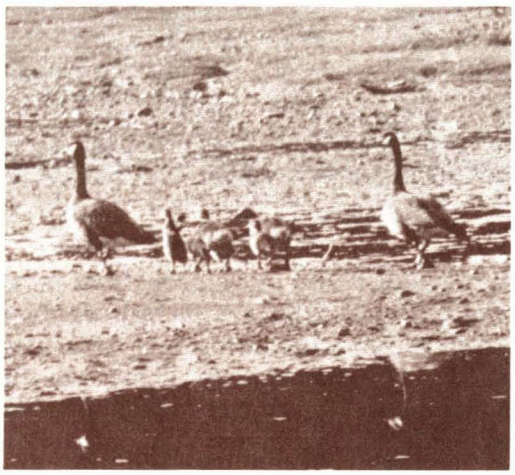
The following recipe provided by Louise Kadake is one you might not find in *Joy of Cooking*, but comes highly recommended:

"I'm sure you have heard of seal flippers—smoked venison and seal flippers make a good combination in seal oil. You cut two holes in the flippers near the tips of the 'fingers'; the idea is to split the flippers by placing a green twig across and anchoring it on both sides. Poke another long twig inside where the wrist has been cut off. You must singe off the hair from the backside of the flipper without it closing—this is a trick—otherwise it closes like a clenched

[12] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

fist. Burn off all the hair over a good fire then scrape it in seawater. If it is done properly, it should be white and clean. Without cutting into the flipper, put it in a pot for three to three and one-half hours. When it is cooked, let it cool and dry, cut it in half and put in with venison in seal oil. The combination tastes even better with age." (Tape 7)

Although our information is far from complete, we were told of other wild game animals used traditionally. Some are frequently pursued today, like a variety of species of ducks and geese. Billy James recounts the fall duck hunt, which took place right before the family left their dry fish camp:



13. Canada Geese, *Branta canadensis.*

"While the ducks were still fresh, we'd bring them in and the girls would pluck all the feathers—there is nothing like smoked duck—this softens the meat somewhat. Because goose meat is tough, it was cooked for hours and hours. We put them in a great pot nicknamed 'China Pot', then they were canned or put up in jars, if we ran out of cans. This was put up for winter. This is part of subsistence living, when a variety of food is prepared and put aside for winter and spring." (Tape 22)

Additional variety was provided by an occasional mountain goat. These animals inhabited the mainland only, and were sometimes choice items of trade. John Jackson learned about hunting from his uncle, in the traditional Tlingit way:

"We went hunting mountain goat and after my uncle shot the second one he said 'this will be enough for now.' He did not want to have the meat spoil on us. The first day, he skinned and cleaned the mountain goat, and hung it up to cool the meat. The following day, he sliced the meat and hung it in the smokehouse. I was surprised at the amount of fire and heat he allowed; I could see the fat and tallow dripping in the fire creating the flames to flare quite high. Finally he was satisfied and let the fire die down. We took it outside to hang—the sun was shining and a little breeze blowing. By that time I was confused so I asked him 'why are you doing that?' He said, 'I will tell you this meat is cooked and will never spoil. It will dry by the gentle breeze and at the proper time we take it back to the smokehouse for final smoking. We will boil some to put in seal oil and pack the rest with dry straw.' This is how you prepare dried meat for winter's use." (Tape 7)

Walter Williams describes the use of perhaps the most feared animal in contemporary Southeast Alaska:

14. Brown bear and cub. The Angoon Tlingit derive their name from this prolific animal.

"Another food that is lost today is bear meat. A long time ago, it was important because there was plenty of it. The only method of preserving it was to smoke and dry it. In this day and age, you can put it in cans and jars, freeze it, or salt it in barrels—but long ago the only way was to smoke and dry it." (Tape 6)

In her conversation with Minnie Johnson, Madonna asked if the Tlingit people ever had problems with bear at their subsistence camps. Minnie answered:

"Bear? They always walk around, they never bother us. They never come on our side . . . We just say 'go on, go on,' and he understands it." (Tape 10)

Minnie is a member of the Brown Bear clan (Teqweidi) and she went on to recount the legend of Kats' which partially accounts for why "the bear understands when we talk." The complete version of the story, in which a "she-bear" captured a man by which she had two children, can be found on the taped interview. (Tapes 10, 19)

Brown bears were some of the earliest migrants to Southeast Alaska, arriving from a northerly origin during the time of a major glacial retreat, about 10,000 years ago. The islands north of Frederick Sound—Admiralty, Baranof, and Chichagof—as well as the mainland are inhabited by brown bear. The black bear are more common on the islands south of Frederick Sound and they live on the mainland also.

Henry Katasse explains an important feature of aboriginal hunting gear, one no longer critical to modern rifle hunters:

"Handles of spears should be made out of yew wood. When a bear is finally speared, the hunter pins down the animal and puts up a ferocious resistance and the handle takes alot of abuse."(Tape 24)

Sea lions were less frequently used and we are fortunate to have this account by George Jim:

"After the sea lion is killed, it is towed ashore . . . immediately start cutting it (including the hide) into strips about two feet long and ten inches wide. Slice the meat from the ribs and hang it above the fire in the smokehouse. Scrape the skin side of the strips of fat so it will cook quickly. After it is cooked, and after cooling and drying, it is preserved in its own oil. It will preserve for a year and is usually eaten with tee yee (soaked dried salmon or halibut)." [13]

Beach Food

The Tlingit people lump intertidal plants and animals together as "beach food." Certainly this is the most concise way to refer to the many varieties of shellfish, other marine invertebrates, and seaweed which have been used as subsistence foods. These foods provided a good portion of the diet, especially in winter and early spring when little other fresh food was available. Today, residents of Southeast Alaska are urged to avoid shellfish at certain times of the year because of the danger of PSP—paralytic shellfish poisoning. Two of our cultural specialists gave us cautionary words. George Davis offers the traditional warning:

"All I can tell you is that when the grouse hoots, it is time to stop eating clams. In Tlingit, this is called Nakt, 'grouse-clams', the month of April." (Tape 17)

He explains that during the winter:

"Our people eat the small clams raw to clean out their system—it works like castor oil." (Ibid)

Henry Katasse, who is from an area somewhat south of Mr. Davis, phrases his warning a little differently:

"According to the southeastern Tlingit, whenever the herring spawn, it is time to stop eating all shellfish. The month is called Heen ta nuxkaya nee dis, 'plant month in the sea.' Everyone just accepts it and leaves all seafood alone. Clams are mostly dug in the winter months. Some are dried and some are cooked in herring, bear, eulachon, or seal oil and preserved." (Tape 24)

Louise Kadake describes her family's favorite way to preserve cockles:

"My parents used to go into the woods to pull hemlock roots—sharpen one end and have it handy. Steam the cockles in their shells and let them cool. As soon as they are cool enough to handle, penetrate the cockles with the sharp end of the root. Put on about twenty-five or thirty cockles, then close the loose ends of the root to make a circle and hang over smoke until dry . . . they did the same with butter clams . . . in the winter time it would take a long time before cooking but you will be surprised at the delectable flavor." (Tape 7)

15. Louise Kadake at the Pioneer Home in Sitka, 10/18/83.

[13] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

An important feature of cockles prepared this way was that they could be used as trade items. People living on the islands could process cockles from their local beaches and trade to the mainland people. In return, mainlanders might offer smoked mountain goat meat or eulachon oil.

The importance of seaweed in the traditional Tlingit diet is indicated by the number of cultural specialists who described its use. Its high nutritional value has been demonstrated in recent studies (see Appendix II) which have found it to contain large amounts of Vitamins A and C and calcium and iron. Laḵ' úsk, which is also called "winter seaweed" or "black laver" is very popular; even today it is a big selling item at occasional Indian food sales which occur throughout the region. We shall start with George Davis:

"Heen ta nuxkaya nee dis means 'plants that grow in the water month' which is when people start looking near high water mark for laḵ'úsk. You roll them right on the rock and they look like little cigars when they are gathered to dry. They do not keep, but they are very sweet and tasty while they last. They grow only in certain places . . . you can find them at Salisbury Sound near Sitka and also at the Mitchell Bay rapids." (Tape 17)

Henry Katasse gives another clue as to when to look for black seaweed:

"When alder leaves are fully grown, it is time to go after laḵ'úsk for winter use. It is dried, put up in square cubes with layers of leaves in between to keep it from sticking. This also added natural flavor, the leaves of alder." (Tape 24)

A similar process is described more fully by John Jackson:

"The seaweed is put up in strands laid on the bottom of the square wooden box until it is thick enough—then compressed to make square cubes. As one layer is complete, kuneilts'ók kuyanee (swamp currant leaves) are put on top. On top of this one is placed a square board weighed down with rocks. Then start another one and repeat. For the evening, it is weighed down with something heavy. When the sun is up in the morning, they are taken out and repeated every morning—until the sun lasts or when completely dried. If the sun is gone, thread through squares of seaweed with a thin wire (piano wire) and hang where there is dry heat." (Tape 4)

Dick's own description of black seaweed gives us some pointers as to how to recognize it:

"Laḵ'úsk is the thin frond, spied at low tide growing from rock ledges and boulders. Eventually, the heavy seas tear considerable quantities of it loose and toss it on the shore. It has wavy edges which characterize this leaflike seaweed. It grows to about a foot long, and one to three inches wide. In Southeast Alaska, they are gathered during low tides in May and early June. They are spread out in the sun and turned repeatedly until partially air dried. Then, they are ground with a meat grinder and put back in the sun to complete the drying process. Continue turning until completely dried. Then store them in an airtight container in a cool dry place—dried laver can be kept for a year. It is widely used in fish stews, soups, and chop suey. Many people enjoy chewing on it like popcorn." [14]

Walter Williams emphasizes the importance of local knowledge and demonstrates Tlingit ingenuity in his account of drying seaweed:

"The natural way is to dry it in the sunshine; you lay it flat and spread it out thin. This one particular time we went to South Rocky Pass and picked a lot of seaweed, thinking the weather was going

[14] Richard Newton ms. on file, Admiralty Island National Monument, Juneau, Alaska.

16. Walter Williams, courtesy of Isabelle Williams and Vesta Dominicks.

to clear up—but instead it went from bad to worse. So I tried something new. I cut a lot of wood and built a great bonfire, and hung the seaweed on sticks and branches, just like clothes on a clothesline. Some of it would fall on the ground so I picked it up. Luckily, I had my crosscut saw and cut some large pieces of wood. This gave off a lot of heat in no time, and to my surprise, the seaweed dried just as it would in the sun. I showed it to my wife and two great big smiles came on our faces. We took the seaweed over to Kake and the rain was still pouring down, the wind was blowing and there was absolutely no way anyone could get seaweed. This one time, I think played a trick on nature, to get our seaweed." (Tape 6)

Dick Newton tells the story of a contemporary Tlingit woman who has learned to play another "trick" on nature:

"The problem of no sun in Southeastern Alaska is no longer a problem with me. Whenever it is time to pick seaweed we pick it. To flavor it I mix a little bit of sugar and water and sprinkle a little soy sauce on it. Then I grab a clean pillow case and fill it up with seaweed and put it in the dryer. In no time, I have seaweed all ready for winter." (Ibid)

For those who may not want to experiment themselves, but would like to try a gourmet dish, Dick gives us his special recipe for "laver soup":

1-½ pound can small shrimp (large shrimp may be chopped)
2 stalks celery
soy sauce (Kikkoman)
3 bacon strips
1 cup dried laver
1-½ pound can minced clams
1 medium size onion
½ green pepper
pepper for seasoning
2 cups cold water (or more for more people)

Dice peeled onion, celery, and green pepper and put them all together in a bowl. Dice strips of bacon and brown in frying pan (do not burn.) Open and drain a can of shrimp. Open and partially drain clams. Empty both cans into a pot and heat.

Add cold water and laver. Start stirring to determine texture of soup (should not be thick, juice should be visible). Add diced ingredients, including bacon and grease. Simmer lightly for two minutes, then reduce heat. Do not boil! This should be ready to serve in 15 minutes. I advocate rice cooked in a rice cooker, or equal, as a side dish.[15]

Dick is quick to qualify his recipe and explains:

"I have never used a measuring cup in my life, so I apologize for uncertainty in amount of water in proportion to laver. This is determined by the number of people to be served and the chef." (Ibid)

Less information was available about other types of seaweed. However, George Davis explains that k̲'ách', sometimes called "sea ribbon" or "summer seaweed," grows through July and is available "on the inside" and "on the outside"—meaning it grows near the heads of bays, and also near the outer coast. Inside Bartlett Cove is a good place and Minnie Johnson describes "up inside" Mitchell Bay as a good spot.

Other special foods were available over a very brief period. Detailed local knowledge was necessary to take advantage of bird eggs. The comments of Henry Katasse illustrate this:

"Seagull eggs provided a welcome change in diet and men were usually willing to travel quite a distance to get a supply of seagull eggs. At that time, there is a different sound to the seagull's call." (Tape 24)

[15] Richard Newton ms. on file, Admiralty Island National Monument, Juneau, Alaska.

Wild and Cultivated Plants

The wild plants available to the Tlingit were rich in vitamins and minerals, although they provided little in the way of carbohydrates. After a long winter of dried food, fresh roots, greens, and berries were a welcome seasonal gift. Henry Katasse gives a comprehensive description of one of the earliest wild plant foods, k'wúlx, or "fern rhizomes":

"Fern rhizomes are usually found at the base of hills and require a certain amount of moisture. People who hunt usually spot the plants—they know the spots where they are plentiful and easy to dig. The rhizomes are dug in large quantities and the edible part measures approximately one inch in diameter and twelve inches long, but these vary in size. When they are carefully washed and separated, dig a pit on a gravelly beach and fix a fire for the purpose of heating the ground and rocks so it may be used as a steam cooker without steam pressure. Line it with kelp, put in the rhizomes, cover it with kelp again, and finally with gravel and hot rocks, both at the bottom and top. Then a small fire is built on top of it for about three to four hours, mostly for coals. When this is done and cooling off, they are peeled; the edible part is on the inside. After they are all peeled they are ready to be consumed, but most of it is taken out and partially dried and put in seal oil for winter use."(Tape 24)

When Dick asked if it was necessary to add sugar to cooked rhizomes, Henry answered:

"Not if it was gathered at the right place. Good location should provide K'wúlx that tastes like sweet potatoes and it's not necessary to add sugar. Location has a great deal to do with it. Like Saginaw, at the head of the bay . . ." (Ibid)

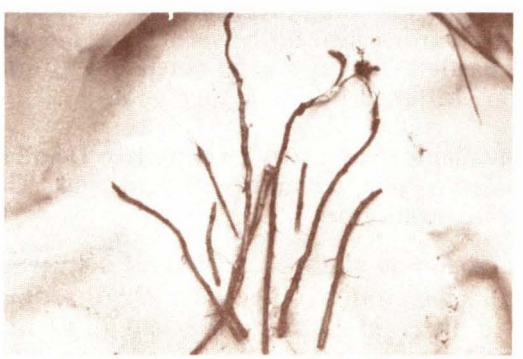
Mr. Katasse continues with his knowledge of tséit, wild sweet potatoes. The head of Saginaw Bay:

"has earned the reputation of a good place to dig wild sweet potatoes. The location for digging tséit is important; certain places are noted for tasty tséit. The best tséit are dug at the entrance of rivers and fish creeks—where the sun hits the area—they are sweeter in a sunny area. There are areas noted for this; some areas on the tip of my tongue are the head of Saginaw Bay and Petersburg Creek.

"The dead leaves are usually laying on top of the ground when tséit are dug—usually as soon as the snow melts in the month of March—before the plants start growing . . . this is when they are tasty and sweet. Later on they become bitter when they start to blossom; the blossom looks like the yellow butter cup. It is a slow process to dig enough for an average sized family to last them throughout the winter. Tséit are dug with kat' made for this purpose—it looks a little like a wooden spade. Later, metal shovels, spades, and pitchforks came on the market; the wooden spades were surpassed for speed and convenient digging. Digging a new area is like starting a rocky hard beach for clams. Once a soft spot is located, it becomes easier digging for the wild sweet potato and you can pick out the right size and throw them in a bucket. At the end of the day these are washed carefully and put out to dry. There are two ways of preparing them. One way is to steam cook them, as soon as you get them dug. The other way is to dry them, dehydrate them. The one that you're going to cook right away is steamed and covered tightly. This is put away for the winter and covered with fresh seal oil, so it will preserve. This was one means of preservation, the other was to sun dry it as I've already mentioned, after the tséit are braided or matted and tied. To serve the tséit stored

17. Dick Newton in pursuit of tséit.

18. Tséit on shovel.



19. Tséit on white cloth.

in oil, drain off the oil and run water on it. To prepare dried tséit soak it in warm water and then steam." (Ibid)

William Nelson provides additional detail regarding gathering and preparing tséit:

"Tséit is picked in the spring while tender, in April and May. They are found and dug near flats—you identify them from their leaves. Digging is tedious, one root at a time, then put into a container like a water pail. When this is filled, they are washed in fresh water four or five times. They should be thoroughly free of dirt and put in a clean flour sack. At the end of the day, the tséit are separated according to size, in diameter and length. Bundle neatly, run a string through them, and arrange for quick drying. Hang in a warm place, away from the sun. Smoke will not bother it, they should take two to three days to dry. The dried tséit required soaking before cooking. It will keep for years. But tséit is better when it is fresh. It is steamed, but be careful not to overcook, because it can become mushy. Stick a fork into it to check. Tséit tastes like sweet potatoes or yams and is served with fresh seal oil."[16]

20. Bulbs of Indian rice, kóox, *Fritillaria camschatcensis.*

John Jackson specifies some particular places to find tséit:

"Tséit are dug when there is dirt at the mouth of a creek where the salmon spawn—like the Taku River, Chilkat River, Sumdum River, Stikine River . . . there were only two methods of preserving food in those days: one way by dehydration, the second way by preserving it in oil after cooking. Of course, these applied to tséit, also." (Tape 4)

For interested cooks, Jessie Dalton gives one additional clue:

"When they are cooking, you can take off the lid to look, and when they are done they seem to come alive. They move around and this is an indication they are cooked." (Tape 16)

21. Flower of Indian rice, kóox, *Fritillaria camschatcensis.*

Another root, kóox, or "Indian rice," is available a little later in the spring. It is usually described along with tl'ak̲'wúch, "Indian rhubarb," with which it is often served. Henry Katasse explains:

"Around the middle of May, it is time to go after Indian rice, these were picked on Keku Islands. In contrast to gathering tséit, it was easy picking. Rice appeared to like soft, loamy earth with very little shade. The kernels on the rice are about the size of a kernel on corn cob. Not too far from the island on the mainland, we picked wild rhubarb. Contrary to the way the domestic rhubarb is picked, the leaves on the rhubarb are the only thing used. Rhubarb and wild rice are eaten together. The wild rice by itself is too bitter, so the two always go together. Both the rice and rhubarb are cooked, mostly steamed." (Tape 24)

George Jim adds a few details which might assist a novice subsistence food gatherer:

"Where there is marsh, look for wild rice—identified by the leaves and purple flower. Only save the bulb-like base with kernels that look like giant rice. Further inland from where you dug the wild rice, wild rhubarb are picked—their leaves are narrower and stalks are smaller in comparison to domestic rhubarb. These two foods are both boiled and stewed in separate pots and then served together. The accepted way to eat it is to add sugar and seal oil."[17]

During this same time of year, "Indian celery," is gathered. Although the stalks are prime for only a short time, they are well liked. Henry

[16] Transcription of English translation of interview with William Nelson, Sr., by Richard Newton.

[17] Transcription of English translation of interview with George Jim, Sr., by Richard Newton.

22. Wild celery, *Heracleum lanatum.*

23. Dick Newton peeling wild celery.

Katasse tells about the use of this plant; again certain places were known for their exceptionally good wild foods:

"We'd go to another island for wild celery. The noticeable thing about that celery—they were thicker there than the usual celery that we ordinarily get. My grandfolks called it, literally translated, 'fat', referring to the celery. Now this is unusual, but as I say, literally translated according to Tlingit, the celery were fat, easily peeled and tasty. These do not keep but for only two days, but we would cut a lot of them and bring them over to Kake and give them away. The grandfolks remarked that being in indirect sun and being close to salt water has a great deal to do with the success and taste of the wild celery. Unfortunately, the celery doesn't stay nice for any time as they toughen up at the end of May and are no longer fit to eat. It's like lettuce, and other greens that are grown in the garden because if they are allowed to go to seed that is the end of it."

(Tape 24)

Other fresh greens relished by the Tlingit include nettles and dandelions. Dick cautions us to be wary of our first impressions when we are learning about new subsistence foods:

"Now we come across nettles. Right away, minds go into gear, 'nettles are edible?' One of the things a subsistence food gatherer experiences is a desire to change some of the names. It is like this: the sound of pig's fat is not too appetizing, so it is called bacon and one does not have to imagine anything but food. Nettle leaves should not be overlooked. These delectable edibles are among the first wild vegetables. They are best gathered with leather gloves during spring and early summer. If skin should be irritated, especially at the wrists, alcohol can be administered. They are good by themselves topped with butter or margarine, and are an excellent source of vitamins A and C and some of the minerals. The stems of older plants yield strong fiber, which were used for fish lines and halibut lines centuries ago."[18]

He goes on to give us a breakfast recipe:

"Young, tender dandelion greens can be used to add vitamins to scrambled eggs. Add a cup of shredded dandelions. Scramble by adding one tablespoon of water for every egg. Remove while still soft and creamy." (Ibid)

Dick continues by suggesting some additional uses:

"When cooking dandelions as a vegetable, change the salted water once. This removes the tinge of bitterness. Roots of dandelions can be used for coffee by roasting in an open oven until crisp. Grind and keep tightly covered and they can be used all year long." (Ibid)

Dick is obviously an expert on cooking fresh greens. From him, a method of cooking fireweed:

"Cut young stems into sections and boil them with a small amount of salted water until tender. This way they resemble asparagus.

"The mature stalks may be peeled to be eaten raw, or cooked into thick soup. Leaves may be used for greens, and in the late fall may be used for tea. Another way is to melt two tablespoons of butter in a cast iron frying pan. Add four cups of fireweed leaves and three tablespoons of water. Cover and stir, cook for about two minutes until the fireweed is wilted. Add salt and pepper to taste; eat while hot and savory." (Ibid)

[18] Richard Newton ms. on file, Admiralty Island National Monument, Juneau, Alaska.

24. Minnie Johnson with baskets in her home, Angoon, October, 1983.

Berries were one of the main sources of sugar for the Tlingit before contact with Euro-Americans. Certain berry patches were so productive that they were owned by particular families or clans. A few of these noted berry patches can still be recognized today. Salmonberries, thimbleberries, and blueberries are the most abundant; these were the staples, and huge quantities were processed and preserved for winter. Minnie Johnson describes a special container used for storage:

"The container we used was made of the bark of yellow cedar. It was a square box and water-proofed with pitch. Berries would never spoil in it." (Tape 19)

Some of the less commonly available berries were the ones our cultural specialists chose to describe. Perhaps this emphasis reflects the need to preserve knowledge of those wild foods not frequently used today. The use of gray currants is described by Walter Williams:

"There were gray currants which are not being eaten these days. They make a good combination with blueberries. Shàx̱ (gray currants) and kukutlàx̱ (blueberries) are boiled with salmon eggs and a little flour to thicken. They keep quite awhile and can go from place to place in five gallon containers—preferably wooden boxes or crocks." (Tape 6)

Walter goes on to describe traditional use of kuxwéix̱, the high bush cranberry:

"There are many things that are being forgotten that can be eaten, and among them was the kuxwéix̱. They are prepared by kanutle, a process by which you get a whole bunch of skunk cabbage to use as a pot. You put it over an open fire and put in a whole bunch of high bush cranberries. It's put away in eulachon oil and the more you put up in the fall when things are plentiful, the more ambitious you become. A lot of people would go out and just work day and night because you can turn it into money or exchange it for whatever." (Ibid)

Another way to prepare these berries is described by John Jackson:

"High bush cranberries by themselves are sour—containing more acid—so it is counteracted with Tlingit kóox [wild rice]. The kóox is cooked and added to the high bush cranberry in proportion to the amount of berries being prepared. then it is put in eulachon oil in a large container and taken out as needed." (Tape 4)

The common name for the following berry derives from the Tlingit name, "neigóon." These berries are very rare and have a unique flavor. From John Jackson we learn:

"Neigóon berries are put up by themselves and in oil; there are only certain areas where these berries grow and ripen in abundance. Hoonah was noted for its share of neigóon berries. People used to go there and trade these desirable delicacies." (Ibid)

Henry Katasse offers another recipe for berries. This dessert was created by Raven, probably the most prominent character in Tlingit mythology.

"One day the raven was a host for people he had invited. His wife was preparing the food; in serving the fresh salmonberries for dessert she discovered that they did not have any seal oil which was a necessary ingredient to add to the salmonberries and something to sweeten them. So the raven said, 'Why don't you dig up the sockeye heads down at the beach and use the sockeye shuntu tyi in the berries.' Shuntu tyi translated means 'fat in the eyeballs,' that is the

literal translation of it. The eyeballs were cut open with a sharp object and the oil was collected in a large clamshell until there was enough. The salmonberries were then mashed with a little water added to it and then the shuntu tyi was poured in as the last ingredient. The entertainment was a success and the recipe the raven drew up was used for many years until sugar was introduced; no oil, no sugar was required when shuntu tyi was used." (Tape 24)

Another confection in the traditional Tlingit diet is su$\underline{x}$', the inner bark of the hemlock tree. The task of processing was quite involved, as Martha James explains.

"One tree usually provided enough for the family for the winter; tree and limbs provided the wood for them. Peeling the tree was an interesting operation. An axe mark is put around the circumference of the tree after it is fallen. The tree is cut in four foot pieces, just large enough so that a woman could handle it, sometimes only three feet, depending upon the size of the woman. They would taper young trees that are sharpened on both sides like a wedge and go all the way around following the axe mark. The men start peeling the bark off which in turn is taken over to the women who are removing the sap at the end of the assembly line. This is the way it was done.

"Whenever they could get a large cast iron pot, it was luck for whoever owned them. These pots were lined with skunk cabbage and very little water was put on the under side. They knew exactly how much heat to put underneath it. Then all the su$\underline{x}$' was placed in the pot and covered over with the skunk cabbage. Covered nicely, steam was not supposed to escape from it. Someone had to watch the water to see that it continued to boil, both the steam and the fire must be watched. This became quite a tedious job, watching the pot. It is cooked for a very long time and finally when the su$\underline{x}$' is done, it is then put away in jars. In the olden days, it was quite different, you had to wait for the proper weather, and had to take advantage of the sunny days and the windy days by putting them out and letting the sun look after it and the wind going through it. This is the way they were dried. It didn't take very long to dry them and there was only one way of preparing su$\underline{x}$' for the winter, dehydrated." (Tape 22)

25. George and Jessie Dalton, October, 1983.

Before the introduction of such pots, this process was accomplished as Jessie Dalton describes:

"Take the bark off from all the way around the hemlock tree. Shave off the bark from the sap side with what looks like an Eskimo ulu. Take the bark off in thin layers and after there is enough dig a pit and line it with coarse gravel all the way around and cover it with fern, about one inch deep. On top of that, a layer of skunk cabbage, then you're ready to put in the su$\underline{x}$'. Now you need to cover it again. Of course this is after the fire has been built and the rocks are quite hot so you have to work fast. Then cover with more fern, skunk cabbage, and finally sand. The fire should last all night and the following day, you will uncover it and find it very nice, tender and very sweet. Put it on clean canvas in the sunshine for a number of days to dry it." (Tape 16)

Besides its use as firewood, the hemlock tree yields other useful products. George Davis speaks of some of these:

"You can boil the needles and drink it . . . it can heal sores in your mouth . . . when you have a burn, you chew on the needles, then use it for medicine." (Tape 18)

There are many other wild plants used by the Tlingit. The last one we will address here is a member of the ginseng family. Matilda Gamble provided this information:

"Devil's club—after you scrape the needles off, put it into the oven for a short time and grind it into powder [the powder is then boiled in water to brew tea]. You can use it as a medicine—good cold medicine." (Tape 11)

For the purposes of this report, the statements of our cultural specialists have been dissected in order to present information on one food at a time. To illustrate how the Tlingit people themselves describe subsistence activities, Martha James's description of wild plant use follows. It is more representative of how the information was originally revealed. Martha remembers camping at Kutlxitchkinoo (Marmion Island) with her grandfather and grandmother. In the spring, they planted potatoes, carrots, and rutabagas:

"Right along with planting the garden, we dug k'wúlx̲ (fern roots). All the dirt was scrubbed off—if you had a brush this was fine. It needed a lot of cleaning and washing over and over. They were split in half, cut into even smaller pieces, put into a large pit and boiled until cooked. At the same time—I would say the latter part of May—Indian rhubarb was ready to be harvested. We, as children, would tag along with the grown-ups. It seemed that people have learned exactly where to go and pick these. The combination of wild rhubarb and rice went together; wild rice by itself is inclined to be bitter and strong tasting . . . we dug tséit [wild sweet potatoes] too . . . June was the time to get sux̲' [sap of the outer cambium layer of inner young hemlock bark]. Special knives, yees, were similar to ulus and kept very sharp to get the sux̲' off from the inner bark . . . " (Tape 22)

As mentioned earlier, the only group of foods conspicuously absent from the aboriginal diet was carbohydrates. Before white contact, the daily caloric needs were satisfied by animal proteins, fats, and oils. With the growth of commerce accompanying the fur trade, flour, rice, potatoes, turnips, and carrots were introduced as trade goods. Some of the traders planted vegetables for their own use, and the Tlingit eventually adopted these domesticated plants. Potatoes were the most important crop and again, certain places produced foods of special quality. Ruby Jackson describes the famous Killisnoo potato:

"On Admiralty Island, across the bay from Killisnoo, is a very large sandy beach—a crescent shaped inlet—that was all a garden. People planted their potatoes, turnips, rutabagas, carrots, whatever. The sandy soil produced the mealiest potatoes in the world—delicious. There were also small red potatoes, the skin was red and orange, on the inside, it was very sweet. I guess it was known as Indian potatoes, but we knew it as Tlingit k'óns', which is potatoes of the Tlingit people . . . they even grew tobacco there!"[19]

Walter Williams gives some more information about gardening in general:

"Keeping a garden is a thing of the past because you can buy potatoes and other vegetables very cheap. But at one time, every available spot was taken for gardens. They grew carrots, rutabagas; later they added strawberry patches and raspberry bushes. It was fun to grow your own garden and it kept you busy and out of mischief so to speak. In the white man's world they plant with fertilizer, something to make the garden rich. The Tlingit people used seaweed, preferably the old rotten type above the tideline. You pick them up

[19] Transcription of English translation of interview with Ruby Jackson by Richard Newton.

26. Madonna Moss recording the location of old garden rows on an ethnohistoric site, July, 1980.

and fill sacks and bury them in your garden. Another thing is gèeshax̲woo, literally 'bull kelp hair.' Starfish, and sometimes even leftover dry fish were used. Just bury it in the ground and forget about it over the winter. When they would go back to the garden the next year, it was fertilized." (Tape 6)

We were fortunate to receive some additional information about the largest members of the plant kingdom. Although they did not provide a main source of food, their use was critical to the subsistence way of life—primarily for use as firewood and in shelter and canoe construction. The Tlingit made use of trees in ways which guaranteed their survival in what can be a very harsh environment. The following contribution of Lydia George reveals the respect the Tlingit people had for trees:

"From different areas they could take trees for firewood, after the tree was chopped down they removed the bark and it was piled in one place. After the trees were chopped into blocks, each branch was also chopped into usable lengths, but to the very end of each and every branch. Not one was wasted. The Tlingit believed within the tree was a spirit of good luck—as a man chopped, the spirit of good luck moved. Only by chopping to the end of each branch tip can a man have good luck. All were carried home and used. If a man was caught taking a tree from the special areas, he was punished by the house chief and the council, by taking from him all his hunting equipment."[20]

A comprehensive description of the Tlingit way of selecting trees for specific uses is supplied by Henry Katasse:

"The first of February was the time to fall trees—red cedar and yellow cedar were spotted during summer because during the winter there was plenty of snow . . . wood for totem poles and canoes will not check this time of year. For a totem pole, a tree will have vertical grain, with knots on the backside only. First you limb the tree, remove the bark and then gouge a deep concave area on the knotty side to lighten the log so it can be hauled away. When it gets to its destination, it is placed on workhorses in front of the community house . . . hand tools were quite interesting—manufactured by the Tlingit people themselves: double bit axes, mattocks, and some that looked like shipwrights with spur axes attached to a firm and flexible adze handle that will bounce as you use it." (Tape 24)

A different process is involved in canoe construction, as Mr. Katasse goes on to recount:

"A tree is carefully chosen—when I say tree, take it for granted that it's a red cedar. You have to consider the position of the knots, the size of the tree . . . you have to look at the top of the tree—the bottom does not tell you anything because it always looks good. If it's on top of a hill, it will crack when it is fallen . . . Furthermore, red cedar has a tendency to be infected with dry rot. You have to be careful.

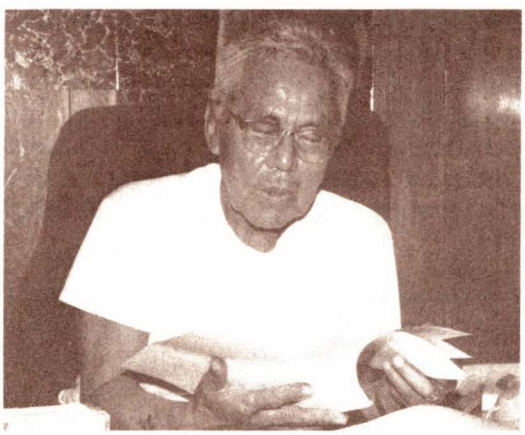
"The preparation of moving what was once a log was a tedious task. The bow, stern, and top of the canoe were roughly shaped with an axe. The following day, a different tool was used to dig out the inside. The easiest route was chosen, with everyone's help the log was taken down with ropes. There was usually lots of snow on the ground, which makes log moving easier.

[20] Lydia George ms. on file, Admiralty Island National Monument, Juneau, Alaska.

"The canoe is situated in front of a community house where the builder can go out first thing in the morning and start work. Wooden models are made and fitted to the outside of the canoe—at the center, bow, and halfway between. It is measured as you go along; charcoal guidelines are used to help get uniform thickness. The outside shape is formed, then a special finishing adze is used. Its blade is usually three-fourths inch to one inch wide and is razor sharp; the handle is soaked in water to give it more flexibility. Adzing the inside is the last finishing job he has to do. Then the builder uses an awl to test for dry rot, and immediately drills wooden dowels where he had drilled holes. The builder is carefully observed—his reputation is at stake.

"When the canoe nears completion, someone goes out to get a load of éech', a black rock with close grain—in English 'igneous.' A huge fire is built, burning all the chips that have accumulated from making a canoe. The rocks are heated, then transferred as quickly as possible with wooden prongs into the canoe, which is already filled with cold water. This is a critical time; if there is a flaw in the wood, the heat stress will crack the canoe. When the side and bottom are hot enough, poles and sticks of various lengths are used to shape the canoe while the water is still boiling. They are fastened for the night and the water cools off. The following day, seats are put into place, fastened down with spruce pitch on wooden pegs. To preserve the canoe wood, you put on smoke and as many coats as you have seal oil. The canoe is turned upside down over the fire, allowing the smoke to penetrate the wood.

"The preferred wood for paddles is the wood you wedge out of a yellow cedar that has been bruised and is just healing over—called callous tissue. It is vertically grained and does not break easily. Yew is the only wood that surpasses callous tissue since it is hard, close-grained, and strong. The reason for careful selection of wood for paddles is the danger and anxiety of breaking your only paddle in a storm." (Ibid)



27. Henry Katasse in his home in Petersburg, 10/13/83.

Dick recalls a Tlingit phrase, "uhx̲a'du'jeet oowathlix̲" which is used when a woman is widowed after her husband's death. It means "the paddle was broken in her hand." Dick adds, emphasizing the importance of craftsmanship:

"In Tlingit culture, people were branded by the canoes they made. You can tell when an amateur had built one—it wouldn't have the proper bow, or it had crooked lines, or it wouldn't float straight. As a boy, I know people ridiculed these. Quite a few people made good canoes, and they were noted for it." (Ibid)

Responsibilities of the Subsistence Lifeway

Legends reveal various figures as the source of knowledge of many traditional subsistence skills. For instance, Raven was the one who invented the novel way of sweetening salmonberries which has already been described. With this kind of knowledge came certain ethical responsibilities governing relations both with the natural and human world. Dire consequences might result from digression from the proper patterns of behavior. Some of these ideas are illustrated in the following story as told by John Jackson. The legend is originally from the Wuckitan clan of the Auke kwan (tribe).

"This is the story of an orphan boy. Eagles build their houses in trees; people call them eagle nests because in the eyes of human beings it is a nest. To the eagles it is a house and home.

"There was a young boy who became an orphan. His father and mother died, all his uncles also. He had only one pair of grandfolks still living. They were quite old and not able to get around, but they were his only living relatives, so they looked after him. As he grew old enough he was able to get around and he realized he would have to do something for them because they were so old. If they were going to eat, he would have to get some food. So one of the first things he did was to look around. Out in the vicinity of Auke Village there was a reef. While rowing around there one day he discovered there was food there and he gathered some up and brought it ashore. His grandfolks thought this was wonderful, so in turn, they told him to be very careful. They instructed him to always tie the rope around his waist, which he did religiously.

"One day the leather used for rope somehow untied itself from the bow of the boat. The other end was still attached to his waist. When he discovered the canoe had floated quite a ways from him, he did not know what to do. He was a small boy and did what was natural for a boy. He hollered for help and when he did not see any response he cried. After he stopped crying he stood there and thought. The tide would soon come up, so he began to gather rocks and pile them up one at a time. He made steps so that as the tide came up he would be able to climb to the top of the pile and stay above the water. This he did.

"All of a sudden he heard a strange noise coming from above him. It was a commotion made by the noise of wings. When he looked up he saw a large eagle descending on him with its claws extended and ready to pick him up. He could not believe it when his feet left the ground but he did not put up any resistance.

"The eagle finally let him down gently in front of what was to be his eagle family home. One of the eagles noticed this strange creature on their premises so right away he opened the door and asked very loudly 'what is this human being doing in our yard?' He overheard the conversation in Tlingit. The eagle said to his father, 'this is a human being I saved from drowning out on one of the reefs out there. The tide was overtaking him, do not harm him. Let me say that again, **do not harm him!**' He stayed in the eagle community for years. He was well provided for with food, it was like living at home.

"From all appearances the eagle that saved the boy looked like an attractive young woman. Finally she spoke to her father saying, 'he is my future husband, I want you to know this.' This future wife of his talked with him at great length and gave him much advice. She asked him, 'do you see the shirts that are hung on the wall? They all have power . . ., but in varied degrees.' She pointed to the

sixth shirt and said, 'that is the best one. It is the one with the most power . . . and it is called Ka ahn ga cla shot. My father is going to give you a gift. If he gives you a choice, make sure and choose Ka ahn ga cla shot.' This is literally translated to mean 'lifting a whole town.' Then she went on to say this is why, when an eagle gets its talons into its prey—it stays.

"One day not long after, her father said, 'I want to give you a gift.' He showed him the shirts on the wall and said 'you are to choose one of the shirts that you see on the wall.' The boy did not waste any time saying, 'I will take that sixth shirt.' Then the wise eagle father said, 'that shirt is Ka ahn ga cla shot. The fourth and the third shirts do not have that much power but it is good for you not to have too much power at the very beginning. You would make a mess of it if you had too much power to work with before you had any experience. That is why I will give you the third shirt, you will be able to see with keen mind and eye, your prey approaching the surface of the water. This will be given to you first of all. The eagle kwan will bestow fortune upon you through my daughter. I want you to try out this third shirt and see what you can do.'

"He put the shirt on and went up on top of a high tree. He could see many, many things as clear as could be. He saw a fish come to the surface so he went out. His father-in-law told him, 'now you just do not fly any old way, you fly the way the sun rises and sets, east to west. Do not forget this.' So he picked his prey up, which was a black bass.

"The second day he repeated the same ordeal of going up in the tree and looking around. When he saw an object coming to the surface he was all prepared for it, he had it timed so that just when he got to it, it was coming to the surface so he picked it up and brought it home. There he put it in front of his future father-in-law. It was a red snapper. The third day he went out and got a gray cod and brought it home.

"The following day he went out and saw a hair seal and got his talons on it and this particular time the seal got away. So he went home and told his tale of woe about losing his kill. He said I lost it because I was not strong enough. So his father-in-law gave him the fourth shirt.

"He went out and caught the same seal and there was nothing to it. He caught a porpoise the following day and towed it ashore. He came across the same problem though later on when he lost a sea lion because he could not hang on to it. So his father-in-law gave him the final shirt and also a lecture about what a valuable shirt it had been for the many, many years it had been handed down. It had been handed down from generation to generation and people had become wealthy as a result of these shirts. 'No doubt if you are obedient and ambitious and work hard you will be able to become one of the wealthy people. Now I have one word of caution. Try and keep greed out of this. Do not over-kill. Kill only one at a time.'

"So he went out and made his first kill which was a sea lion. He towed it ashore. He caught many things and became a wealthy man and just before he retired, he thought to himself, 'well, I will go out for the last time.' He caught a whale and looked around and saw another one very close by. He decided to kill that one also. He closed the two holes where it breathes on top and by doing that he was able to get the air in there and get them to float. During the night he towed them both ashore, just barely making it. He was about

28. John C. Jackson at his home in Kake, 10/13/83.

to make the last stroke when the raven crowed and the young man died." (Tape 5)

This story is particularly rich in content, only some of which will be discussed here. It clearly demonstrates that hunting knowledge was considered a privilege and that the hunter was invested with special power over the natural world. The power was to be used judiciously, with due respect afforded to the prey. The story begins with the young boy's attempt to provide for his aging grandparents. This kind of motivation was very important in strengthening the fabric which binds the extended family together. The grandparents caution their grandson to be careful, to watch the tides, emphasizing the inherent danger in the traditional quest for survival. The young boy is rescued by an eagle, and in Tlingit legend, animals often appear as benevolent beings with powers to save humans, especially from disasters deriving from a person's lack of knowledge or inexperience. Later on, the boy recognizes the eagle as a beautiful young woman. The mythical world is filled with animals emerging as humans, and humans being transformed into animals. This, in and of itself, demonstrates the interdependance and intimacy of humans and those beings of the natural world. The boy is an orphan, but aspires to hunt with the skill of an eagle. He is adopted by the eagle family; the father-in-law gives him the various shirts which symbolize inherited power. This parallels the human world in which privilege and power is passed on through clan or family ranks. But along with increasing power, comes greater responsibilities. In the end, the boy, now a grown man, abuses his power by killing more than he needs. The ubiquitious raven crows, as the man dies in punishment for his transgression.

Perspectives on the Homeland of the Tlingit

Most of the statements by the cultural specialists have dealt primarily with methods of procuring and preparing Native food. Certain threads run through the statements which attach particular places with special importance. We have seen that some foods are only available at a few places; that certain places were noted for their foods of special quality. Each of the contributors to this book has lived their life in a unique portion of Southeast Alaska. Each person has specific knowledge of the physical setting where they have learned the subsistence ways. Each holds unique tribal, clan, and familial ties, which associate an individual with a particular place. In this closing chapter, what has gone before will be grounded in a discussion of the natural environment of the Alexander Archipelago and of how the Tlingit regarded this homeland.

The Tlingit were a canoe people, living along the narrow coastal lowlands backed by steep mountains. Their land adjoined saltwater of astounding variety—calm estuaries, swift channels, rushing streams, open stormy seas, and broad rivers. The character of these waterways, as well as the land itself, was constantly changing due to the cycles of the earth, the moon, and the sun. The tribes of the Tlingit are known as the "kwans" and each kwan was named for certain physical features of the country inhabited by its member clans. For instance, the Hoonah kwan was named for a cold north wind which blows off the glaciers onto their land. The Taku kwan was named after the large Taku River; the Auke kwan after the small lake near their winter village; the Kake kwan after a stream on Kupreanof Island. The name of the Angoon people, Xóots noo woo kwan, refers to their prolific neighbors on Admiralty Island, the brown bear.

There are thirteen kwans in Southeast Alaska, each with its own territory and distinctive array of resources. Certain animals, like mountain goat, moose, and numerous furbearers only occurred on the mainland. Alternatively, the island people enjoyed the abundance of a greater variety of marine resources. Other resources of limited range include red cedar, which was restricted to the lands south of Frederick Sound, and eulachon which were only found in the large mainland rivers. An expression of this environmental diversity is in the names given to the months of the year—each kwan attributing a name which described reliable environmental phenomena marking seasonal changes. For example, George Davis, who grew up in Angoon, calls April, "Nakt", the time of year when "the grouse hoots and you stop eating clams." This same time is called "Heen ta nuxkaya nee dis" by Henry Katasse from Kake. This translates as "plant month in the sea." This may or may not be the calendar month of April known to Westerners, but it does effectively serve to mark a critical seasonal change experienced at different times at different places.

These kinds of environmental and seasonal variation have had significant influence on the Tlingit people, their relationship to their territory, and with one another. Kwans were composed of a number of clans each of which traveled seasonally to subsistence camps but returned to a permanent winter village to join the other clans belonging to that kwan. Hunting grounds, fish streams, and berry patches were owned by particular clans. The chief of the ranking house of a clan, was the caretaker, the guardian of a territory. He was the one to allocate these resources to his relatives; these were the lands and waters that provided for the subsistence of the clan members. A chief also had the authority to grant permission to members of other clans to use the land. The Tlingit were abundantly aware of the land's value, and it could be exchanged, or even given away when deemed necessary. If one clan incurred a large debt, a particular tract of land could be given away to another clan in payment or reparation. Members of clans other than the one possessing a piece of land might have had ties to it through their marriage into the land-owning clan. Another way a person could develop knowledge of

an area was if it belonged to his father's clan. While inheritance traditionally passed through mother's side of the family, children might spend time on the land where their father had grown up.

Clan ties extended beyond circumscribed local areas; many clans were represented by people living in the permanent villages of several kwans. At another level of organization, clans were grouped together to form the Raven and Eagle and in some places, the Wolf moieties. These nested relationships meant that everyone had some kind of relative in each community, and this greatly facilitated trade. Island residents might visit their mainland relatives and exchange herring eggs, seal oil, seaweed, dried venison or shellfish for mainland furs, eulachon grease, or mountain goat wool. Both the uneven distribution of the various natural resources and the complex of social relationships encouraged the long distance travel and trade for which the Tlingit are famous.

As the prior discussion suggests, the Tlingit people were quite mobile. The principal village was where the winter was spent, this was the time to manufacture and maintain all the tools and household goods used throughout the year. Shellfish beds close to the village were harvested for fresh meat as people drew upon their cached provisions. As we learn from Henry Katasse, winter was a good time to fell trees which could be used in house, canoe, and totem pole construction. In late winter people might venture out on the water for deep sea fishing and seaweed collecting. Later, it was time to collect herring spawn, different seaweeds, and a variety of plants. People might take a break from food procurement in early summer, taking advantage of the good weather to travel and visit distant relatives. By mid-summer, salmon fishing had begun in full force. Finally, in the fall, the families moved to their fish streams where intense harvesting and processing of salmon, meat, and berries took place.

This general pattern of subsistence and settlement throughout the year is known from ethnographic sources. The Tlingit have developed a culture which is well adapted to the environment; individual kwans seem to have evolved their own systems which accommodate extremely local environmental variation. Such small scale variation has undoubtedly changed over time. Tlingit culture has developed over many centuries during which an incredible store of knowledge of the natural world has been amassed. There is archaeological evidence that Native people have lived in Southeast Alaska for 10,000 years, and the Tlingit lifeway provides us with a window through which to view the past.

The Tlingit tradition encompasses the wholeness of the natural world and integrates it within the human world. All aspects of culture blend together and incorporate the physical and biological environment so successfully, that the division between the "natural" and the human world seems artificial. Yet, individual Tlingit people will not explicitly state this to an outsider. It is so much a part of how they perceive the world that it is difficult to express in words. But this perspective is expressed throughout Tlingit culture, and we have seen that the subsistence lifeway is not merely the technology of procurement, processing, and storage.

Items of hunting and fishing gear were not strictly utilitarian; pieces were exquisitely crafted and often prey animals were depicted on such articles as halibut hooks, seal clubs, or figures positioned on fish traps. The portrayal of the animal showed human respect for the animal and its spirit. Ultimately, prey were captured and transformed into human beings through the act of eating. A specific example cited by several cultural specialists was the Indian halibut hook. It was designed to catch big halibut, allowing the younger individuals the time to grow and mature. In this one tool, principles of resource conservation, aesthetics, utility, and spirituality are expressed.

The regard for food is manifest in the feast dishes, utensils, and boxes in which food was served. As Bill Reid has stated, the people of the Northwest Coast were "connoisseurs" and "critics"—of how food was prepared and how the utensils associated with food were manufactured. Insults and ridicule were not withheld when individuals were careless in their preparation of food or failed to follow the proper etiquette of its serving.

Stories and legends remain as an essential element in Tlingit culture. Many stories involve animal beings who make technological innovations, who guide humans across the landscape and waterways, and who rescue and protect humans. The natural world in general, is perceived as a teacher, one who presents challenges, one who fosters discipline and self-reliance, and one who commands respect.

Afterword

The Forest Service is indebted to the Tlingit people for a rich legacy. Knowledge of the old ways provides a perspective for our current efforts at land and resource management. We are fortunate to be allowed to share in the rich Tlingit tradition, and we hope that this book helps preserve a part of that tradition.

29. Dick Newton at his home in Juneau.

Dick Newton has been "putting up" stores of information for a long time. He has left us a cache of information which is only partially realized in this book. The taped interviews will be preserved so that in the future, Tlingit people as well as serious students of Tlingit culture can continue to learn.

In my association with Dick, he always showed empathy for his "Caucasian friends" who could be so slow at understanding Tlingit ways. This certainly includes me. Dick was very influential within the Forest Service by increasing the cultural awareness of those who were unfamiliar with Tlingit culture. He has been an active participant in both Western and Tlingit culture and is fluent in the language of both.

In earlier times, to save the lives of people who might be otherwise lost in war, Tlingit clans would send emissaries to negotiate a peaceful settlement. These persons were recognized for their diplomatic and oratorial skills. They were referred to as Ḡowukàn, "Deer", because the deer was considered the most peaceful animal of the forest. I shall always think of Dick as the Ḡowukàn since he has done so much to communicate the richness of his culture to all of us.

Madonna Moss

Appendix I:
List of Taped Interviews

1. Walter Williams, Josephine Paul, and John C. Jackson. Original recording of interview with Richard Newton on August 9-10, 1979, in Kake, Alaska. In Tlingit.
2. John C. Jackson. Original recording of interview with Richard Newton on August 9, 1979, in Kake, Alaska. In Tlingit.
3. John C. Jackson. Original recording of interview with Richard Newton on September 17, 1979, in Kake, Alaska. In Tlingit.
4. John C. Jackson. English translation by Richard Newton.
5. John C. Jackson. English translation by Richard Newton, subtitled "Legend of an Orphan Boy."
6. Walter Williams, Josephine Paul, and John C. Jackson. English translation by Richard Newton.
7. Louise Kadake, Chester James, John C. Jackson. English translation by Richard Newton.
8. Minnie Johnson. Original recording of interview with Madonna Moss on March 3, 1981, in Douglas, Alaska. In English.
9. Minnie Johnson. Original recording of interview with Madonna Moss on May 13, 1981, in Angoon, Alaska. In English.
10. Minnie Johnson. Original recording of interview with Madonna Moss on April 7, 1981, in Douglas, Alaska. In English.
11. Matilda Gamble. Original recording of interview with Madonna Moss on June 13, 1980, in Angoon, Alaska. In English.
12. Annie Bennett. Original recording of interview with Madonna Moss on May 6, 1981, in Juneau, Alaska. In Tlingit and English. Elsie John interpreting.
13. Melba and Albert Wallace, Sr. Original recording of interview with Madonna Moss on April 21, 1981, in Juneau, Alaska. In English.
14. Melba and Albert Wallace, Sr. Original recording of interview with Madonna Moss on April 21, 1981, in Juneau, Alaksa. In English; continuation of Tape 13.
15. Jessie and George Dalton, Sr. Original recording of interview with Richard Newton on June 21, 1979 in Hoonah, Alaska. In Tlingit.
16. Jessie and George Dalton, Sr.; George Davis. English translation by Richard Newton.
17. George Davis. English translation by Richard Newton.
18. George Davis. Original recording of interview with Richard Newton on June 21, 1979 in Hoonah, Alaska. In Tlingit.
19. Minnie Johnson. Original recording of interview with Richard Newton on June 26, 1979 in Angoon, Alaska. In Tlingit.
20. Henry Katasse. Original recording of interview with Richard Newton on March 5, 1980, in Petersburg, Alaska. In Tlingit.
21. Henry Katasse. Original recording of interview with Richard Newton on March 5, 1980, in Petersburg, Alaska. In Tlingit; continuation of Tape 20.
22. William and Martha James; Henry Katasse. English translation by Richard Newton.
23. William and Martha James. Original recording of interview with Richard Newton on March 4, 1980, in Petersburg, Alaska. In Tlingit.
24. Henry Katasse. English translation by Richard Newton.
25. Lydia and Jimmie George. Original recording of interview with Madonna Moss on May 13, 1981, in Angoon, Alaska. In English.

Appendix II: Nutritional Values

The Tlingit people have recognized the exceptional nutritional value of Native food for a long time. Until recently, however, very little information documenting the nutrients contained in Native foods has been available. In 1980, Marguerite Stetson from the Cooperative Extension Service, University of Alaska, Fairbanks, provided Dick with some references containing relevant data. This information was expanded upon by Helen Hooper, Nutritionist with Mt. Edgecumbe Native Hospital in 1981. Hooper collected foods prepared by people in Hydaburg, Ketchikan, and Sitka, and later had an array of analytical tests performed on the sample foods. The information from these various sources was compiled and is presented in Table 1. The following discussion relies heavily on Hooper's analysis.

Table 1 lists the various nutrients found in 100 grams of each of the sample foods. In general, the Native diet is rich in proteins, fats, and most vitamins and minerals. The aboriginal diet is lacking in carbohydrates, but adequate calories are provided by the protein and fat rich foods. In the United States people are often preoccupied with their caloric intake; ie., foods rich in calories are considered "bad." However, in some parts of the world, people have difficulty satisfying their caloric needs and it is obvious that certain environments and certain lifestyles are more physically demanding than others. The climate of Southeast Alaska can be harsh—cold, rainy, and windy—and adaptation to the weather alone demanded extraordinary amounts of energy. The style of life is one in which people spent much time paddling in canoes to their camps, climbing mountains to hunt, processing trees for dwellings, canoes, and firewood, in addition to fishing, collecting shellfish, and gathering plants. All of these activities demanded intense labor, and the expenditure of many calories. The hard work made for a strong and healthy people, and their food sustained their lifestyle.

The Tlingit diet contained many protein-rich foods, especially fish, game, and shellfish. Even seaweed has notable amounts of protein. As illustrated in Table 1, the amount of protein in salmon varies considerably; dried salmon is a rich, concentrated food with a lower moisture content resulting from the drying/smoking process. What is left is high in protein and calories. Venison, as well as other wild game, is rich in protein and as Hooper notes, is generally leaner, with a lower fat content as compared to beef.

Although both fish and game have respectable fat content, it was the rendered oil of seal, eulachon, and herring that supplied a large proportion of the fat required in the diet. These foods were rich sources of nutrients; eulachon grease, in particular, stands out as an exceptional source of Vitamin A. Anyone who has ever been served a Tlingit meal has witnessed how the Tlingit people relish oil; everything—dried fish, meat, herring eggs—is dipped in oil. Oil was also used in cooking, and many types of food were put up in oil to preserve them over the winter. Oil was another dietary staple, and its high caloric content provided a long lasting source of energy.

Shellfish are good sources of protein, and Hooper found significant amounts of vitamins and minerals in the two types she tested. Gumboots and cockles were found to be high in iron, and gumboots are rich in Vitamin A, riboflavin, and niacin also. Shellfish are relatively low in calories and fat. They are a reliable source of fresh protein and played a prominent role in the aboriginal diet, especially during late winter and early spring.

Herring eggs were tested and showed respectable amounts of protein as well as significant amounts of Vitamin C. They were one of the few animal foods tested which proved to be a good source of this essential vitamin. Salmon eggs, may also be rich in Vitamin C. but these were not tested.

Plant foods provided many of the required vitamins and minerals. As Hooper states:

"Dried black seaweed was the best source of Vitamin C and was indeed impressive for its high values of most nutrients. I contained a good amount of protein and was also high in calcium, iron, Vitamin A and B vitamins."

Ribbon seaweed was also found to be rich in protein, calcium, and iron. These foods have become concentrated packages of nutrients partially due to the drying process. Hooper also found large amounts of Vitamin A in beach asparagus and fiddlehead ferns, the latter of which contained a considerable amount of Vitamin C.

The only essential food group missing from the aboriginal diet was carbohydrates. Around the world carbohydrates are comparatively inexpensive and abundant and provide a good proportion of the necessary calories, food energy, and fiber. As mentioned earlier, caloric needs of the Tlingit were satisfied by the same foods that provided protein and fat. However, when the fur traders introduced the potato, and goods like flour, rice, sugar, and molasses, these were quickly and enthusiastically incorporated into the Native diet.

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Table I: Nutritional Information for Native Foods: Animal Foods

Common Name	Scientific Name	Calories	Moisture %	Protein gm	Fat gm	Carbohydrates gm	Fiber gm	Calcium mg	Phosphorus mg	Iron mg	Sodium mg	Potassium mg	Vitamin A I.U.	Thiamine mg	Riboflavin mg	Niacin mg	Vitamin C mg	Ref.
Bear, black	*Ursus americanus*	148	71.2	19.9	8.3	0.	0		162	7.2			260	.16	.68	3.2		3,1
Beaver	*Castor canadensis*	150	67.4	26.8	4.8	0.	0		265									3,1
Cockles	*Clinocardium nuttallii*	79	78.8	13.5	.7	4.7		30		16.2			0	.01	.20	3.2	0.	4
Deer - venison	*Odocoileus hemionus sitkensis*	126		22.9											.5	7.0		1
		117	73.7	21.5	3.4	.2		7		2.9			0	.2	.36	6.6	0.	4
Devilfish, sculpin	*Myoxochphalus sp.*																	
flesh								12	274	.4			1020	.09	.10	1.1		3
tongue			62.5	13.9	22.8	0.	0	6	150	2.8			190	.12				3
Duck, eider	*Somateria spectabilis*	109	75.6	21.5	2.1	0.	0	10	220									3,1
Eulachon, smoked, frozen	*Thaleichthys pacificus*	308	50.1	20.5	24.8	.8		30		12.2			4035	.02	.88	5.5		4
grease													5650					4
Goose	*Branta canadensis*								312	5.6				.28	.46	9.3		3
Gumboots	*Katharina tunicata*	83	78.6	17.1	1.6	0.		121		16.0			1650	.05	.34	3.2	0.	4
Herring, flesh, air-dried	*Clupea harengus*	270	37.5	45.7	10.6	0.	0		972					.01		8.6		3,1
roe, air-dried		294	27.3	60.4	6.6	2.8	0	29	808					.05	.17	4.1		3,1
Herring eggs on giant kelp	*Macrocystis integrifolia*	59	81.8	11.3	.8	2.6		161		3.4			89	.10	.13	2.7	0.	4
removed from hemlock branches		56	83.8	9.6	1.0	4.4		19		2.7			57	.10	.12	1.8	.6	4

1. When protein content was reported as derived from "Kjeldahl" and "Difference" methods, an average was computed and is reported here.

Table I: Nutritional Information for Native Foods: Animal Foods

Common Name	Scientific Name	Calories	Moisture	Protein	Fat	Carbohydrates	Fiber	Calcium	Phosphorus	Iron	Sodium	Potassium	Vitamin A	Thiamine	Riboflavin	Niacin	Vitamin C	Ref.
			%	gm	gm	gm	gm	mg	mg	mg	mg	mg	I.U.	mg	mg	mg	mg	
Ling Cod	*Ophiodon elongatus*		80.4	17.2	1.1								230	.09	.48			3
Moose	*Alces alces*	123	72.4	24.5	2.0				203	2.7			310	.09	.18			3,1
Octopus	*Octopus dofleini*	57	84.4	11.9	.6	.9		24.		5.3			0	.03	.04	2.1	0.	4
Ptarmigan, willow	*Lagopus lagopus*		71.5	24.8	2.5	0.	0		268	6.2			420	.25	1.00			3
Salmon, chum	*Onchorynchus keta*		84.3	12.0	1.5	0.	0	11.	283					.08	.18			3
Salmon, king	*O. tshawytscha*		15.3		37.5			28.	645	2.0			640					3
smoked, canned		150	66.7	23.2	5.9	1.0		60.5		1.8			319	.01	.10	8.5	0.	4
kippered		266	51.2	30.7	15.9	0.		38.		1.7			50	.05	.14	10.9	0.	4
Salmon, silver, air-dried preserved in seal oil	*O. kisutch*		28.1	50.5	19.4	0.	0		670				1220	.19	.35	4.2		3
Salmon, sockeye	*O. nerka*																	
kippered		190	59.1	29.5	7.7	.7		68		1.3			0	.02	.22	13.9	0.	4
hard dried		371	20.3	57.2	14.4	3.2		136.		1.9			355	.14	.60	20.2	.02	4
Sea Cucumber	*Stichopus californicus*	68	80.7	13.0	.4	3.1		20.		.6			310	.05	.94	3.2	0.	4
Seal	*Phoca vitulina*	143		26.0						19.8			1000	.15	.51			1
Starry Flounder, air-dried	*Platichthys stellatus*		9.6	69.1	14.2	0.	0											3
Tom Cod	*Microgadus proximus*		79.2	14.7	.8					.4								3
Trout, dolly varden	*Salvelinus malma*		78.6	16.1	2.1	0.	0						1160	.02	.42			3

1. When protein content was reported as derived from "Kjeldahl" and "Difference" methods, an average was computed and is reported here.

Table II: Nutritional Information for Native Foods: Plant Foods

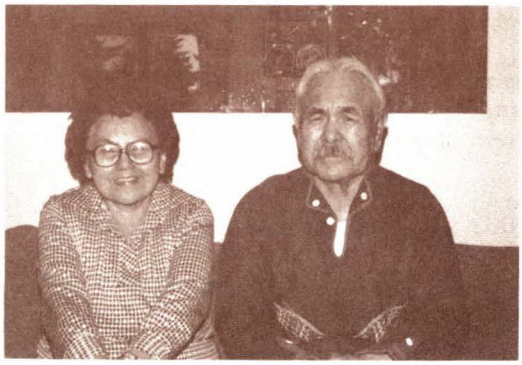
Common Name	Scientific Name	Calories	Moisture %	Protein gm	Fat gm	Carbohydrates gm	Fiber gm	Calcium mg	Phosphorus mg	Iron mg	Sodium mg	Potassium mg	Vitamin A I.U.	Thiamine mg	Riboflavin mg	Niacin mg	Vitamin C mg	Ref.
Beach Asparagus	*Salicornica pacifica*	27	91.1	1.8	.3	4.3		45		.9			1922	.01	.09	.7	1.8	4
Black Laver, dried	*Porphyra sp.*	235	11.8	22.2	1.1	44.3	4.7	434	350	28.3	1294	3503	10790	.24	1.34	5.5	14.	2
		248	9.2	28.7	2.0	41.3		157		10.4			4719	.11	2.25	11.5	17.4	4
soaked, drained		29	90.1	2.6	.8	4.2	1.4	359	25	3.2	157	289	10	.06	.05	.2		2
Blueberries	*Vaccinium alaskanese and V. ovalifolium*	44	88.7	.07	0.	10.4		15		1.1			163	.03	.1	.4	2.2	4
Cloudberries	*Robus chamaemorus*		86.7	2.4	.8	8.6	3.2	18	35	.7			210	.05	.07	.09	158.	3
Fern, fiddlehead	*Athyrium filix-femina*	34	91.1	3.2	.2	4.9		23		.8			1340	.004	.25	2.0	8.9	4
Fireweed	*Epilobium angustifolium*	50	87.2	3.0	.8	6.3	.9	13	89	2.1			5720	.04	.86	1.4	99.	3
Huckleberries	*V. parvofolium*	37	90.7	.4	.1	8.7		15		.31			79	.01	.03	.3	2.8	4
Indian Rhubarb	*Polygonum alaskanum*		85.5	4.2	.5	9.9			87				4480	.10	.13	.1	33.	3
Salmonberries	*Robus spectabilis*	44	88.6	1.0	.1	10.0		14		.64			1550	.04	.07	.1	2.4	4
Sea Ribbon	*Palmaria palmata*	323	7.2	19.9	.6	59.5		190		11.0			23	.07	1.0	6.9	4.8	4

Appendix III: Tlingit Terminology

Listed below are the Tlingit names for the plants and animals providing subsistence, and names for ways of preparing Native food. William Nelson, Sr., Lydia and Jimmie George, and Dick Newton compiled the list of Tlingit words and Madonna Moss added the scientific names for plants and animals whenever possible. Authorities for scientific nomenclature are included in the list of suggested readings at the end of the book. The spelling of the Tlingit words follows the writing system developed by Constance Nash and Gillian Story. Books by these authors, as well as those by Nora and Richard Dauenhauer, can be consulted for pronunciation. The length of the list illustrates the variety in the Tlingit diet and the wealth of culinary knowledge employed by the Native people. In addition to food animals, furbearers and animals who supplied skins and other raw materials are included.

ashút - steelhead *(Salmo gairdnerii)*
átx̲èci - dried fish
ch'a anúx̲ tléik̲w - salmonberries *(Rubus spectabilis)*
ch'èix̲' - thimbleberries *(Rubus parviflorus)*
chás' - pink salmon, humpy *(Oncorhynchus gorbuscha)*
chat'l - storehouse, cache
chátl - halibut *(Hippoglossus stenolepis)*
chátl yùwòo - halibut stomach
cutdut'k̲usx - slicing the salmon for drying
dáh - weasel *(Mustela nivalis)*
dàwdahàh - broad kelp on which herring spawn *(Laminaria sp.)*
doo eenwoo - food one takes home from a potlatch
dug̲usàh - squid (Cephalopoda)
dúxw - lowbush cranberries *(Vaccinium vitis)*
dxéex'w - small clams
dzísk'w - moose *(Alces alces)*
dzúntee - sole, flounder *(Pleuronectidae)*
éech' - fine-grained igneous rock used in canoe making
g̲àk̲ - lynx *(Felis lynx)*
g̲ál' - butter clams *(Saxidomus giganteus)*
g̲àt - sockeye salmon *(Oncorhynchus nerka)*
gawúk̲ - serviceberry *(Amelanchier florida)*
gáwx - black ducks *(Anas rubripes)*
g̲ax'w - herring eggs
gèeshax̲woo - "bull kelp hair" used as fertilizer
gonx̲àh - abalone *(Haliotis kamtschatkana)*
g̲òoch - wolf *(Canis lupus)*
g̲owukàn - deer *(Odocoileus hemionus sitkensis)*
g̲owukàn shayee - deerhead
g̲únch - tobacco *(Nicotiana sp.)*
gunyíkyadé - smoke spreading board hung in smokehouse
hawdahàh - hemlock branches on which herring spawn
Heen ta nuxkaya nee dis - "plant month in the sea"
ishk̲èen - black cod *(Anoplopoma fimbria)*
júnwoo - mountain sheep *(Ovis dalli)*
k̲'ách' - ribbon seaweed *(Palmeria palmata)*
k̲'eikuxétl'k - Jacob's berry, bunchberry *(Cornus canadensis)*
k'incheiyee -rosehips *(Rosa nootkana)*
k'ink' - pickled salmon heads
k'óns' - potatoes of the Tlingit people *(Solanum tuberosum L.)*
k'óox - marten *(Martes americana)*
k̲'ulkútsk̲ - razor clams *(Silqua sp.)*
k'wúlx̲ - fern roots, rhizomes *(Pteridophyta)*
Ka ahn ga cla shot - "lifting a whole town", name of a shirt invested with special power

kanutle - using skunk cabbage as a cooking pot
kat' - Tlingit wooden spades used to dig tseit
kéel k'wút' - murrelet eggs *(Brachyramphus sp.)*
kéet - killerwhale *(Orcinus orca)*
keit' - new growth of the salmonberry plant *(Rubus spectabilis)*
kéitlyudee k'wút' - seagull eggs *(Larus glaucescens)*
kinduchoonèit - mallard *(Anas platyrhynchos)*
kóoshdah - land otter *(Lutra canadensis)*
kòow - slippers, a type of shellfish *(Crepidula sp.)*
kóox - wild rice *(Fritillaria camschatcensis)*
kuhagoo - salmon eggs
kukutlàx̲ - light blue blueberries *(Vaccinium ovalifolium)*
kug̲èet - loon *(Gavia sp.)*
kuneilts'ók - swamp currant *(Ribes lacustre)*
kuneilts'ók kuyanee - swamp currant leaves
kunuls'ák - squirrel
kuxwéix̲ - highbush cranberries *(Viburnum edule)*
kwan - a subdivision or tribe of the Tlingit people
l'òok - coho salmon *(Oncorhynchus kisutch)*
lak̲'úsk - black seaweed *(Porphyra sp.)*
léik̲'w - red snapper *(Sebastes ruberrimus)*
lit isdók - black sea bass *(Stereolepis gigas)*
logún k'wút' - tufted puffin eggs *(Lunda cirrhata)*
loksheeyán - mink *(Mustela vision)*
lóol - fireweed leaves in the fall *(Epilobium angustifolium)*
lóot' - eel (Nemichthyidae)
lúx̲'loowóo - swamp blueberry
Nakt - "grouse clams", the month of March
nák̲w - octopus, devilfish *(Octopus liederma)*
nanyah kunut'ayée - blueberries, purple in color *(Vaccinium alaskaense)*
nàyadi - half dried salmon
nées' - sea urchins, sea eggs *(Strongylocentrotus sp.)*
néhdahàh - hairy grass on which herring spawn *(Deschampsia sp.)*
neigóon - nagoonberries *(Rubus arcticus)*
néx̲'w - yellow cloudberry *(Rubus chamaemorus)*
nókt - spruce grouse *(Canachites canadensis)*
nóoskw - wolverine *(Gulo gulo)*
nuta - bone gorge for catching king salmon
oot'l kèe - boiled fish, usually salmon
s'áw - dungeness or king crab *(Cancer magister, Paralithodes camtschatica)*
s'àx̲' - Pacific cod *(Gadus macrocephalus)*
s'úxt' - devil's club *(Oplopanax horridum)*
s'èek - black bear *(Ursus americanus)*
s'éex ut - shrimp *(Pandalus sp.)*
s'igeidée - beaver *(Castor canadensis)*
s'ikshuldéen - Hudson Bay tea *(Ledum palustre)*
s'òok - barnacles *(Balanus sp.)*
s'ún - carrots *(Daucus carota L.)*
sàk - eulachon *(Thaleichthys pacificus)*
shách' - smelt *(Thaleichthys pacificus)*
shàw - gumboots, chitons *(Katharina tunicata)*
shàx̲ - wild gray currants *(Ribes bracteosum)*
shayeekax̲ayee - spruce tips *(Picea sitchensis)*
shuntu tyi - fat in the eyeballs of a sockeye salmon
sok̲téitl' - goose tongue *(Triglochin maritimum L.)*
sus' - stick used to hang about twenty-five partially smoked fish in smokehouse
sux̲' - hemlock sap (cambium layer) *(Tsuga heterophylla)*
t'awúk̲ - Canada goose *(Branta canadensis)*
t'úh - king salmon *(Oncorhychus tshawytscha)*
tàn - sea lion *(Eumetopias jubata)*
tee yee - soaked dried salmon or halibut
téel' - dog salmon *(Oncorhynchus keta)*



30. William Nelson, Sr. and his wife Martha at their home in Angoon, 10/19/83.

tínx - bearberry *(Arctostaphylos alpina)*
tl'adéin àh - turnip *(Brassica campestris L.)*
tl'ak' wúch - wild rhubarb *(Polygonum alaskanum)*
tl'ildaskèit - littleneck clams *(Protothaca staminea)*
tla'tuch - freshly caught salmon after it has been bled
tleikutunk - huckleberries *(Vaccinium parvifolium)*
tleikw kunee gwal' - berry jam
tléikw yúdee - wild strawberry and raspberry *(Fragaria chiloensis, Rubus pedatus)*
ts'eekúxk'w - mountain blueberries *(Vaccinium uliginosum)*
tsàh - hair seal *(Phoca vitulina)*
tsàh nasee geidee - seal intestines filled with fat
tsàh yùwoò - seal stomach
tséit - wild sweet potato *(Potentilla sp.)*
tuwéi - mountain goat *(Oreamnos americanus)*
tuyeidéedahàh - yellow seaweed on which herring spawn *(Fucus gardneri)*
uh gag gux dus xoo - "cooking in the ground"
uhxa'du'jeet'oowathlix - "the paddle was broken in her hand," a phrase used when a woman loses her husband
unuhòo - rutabaga *(Brassica napabrassica)*
ut dálee - deer or moose tripe
ut geenée - tail flippers of seal or sea lion
ut káhàgèe - kidney of deer, seal, or goat
ut klooté - seal, deer, or moose tongue
ut teixée - heart of deer, seal, or moose
wéix' - sculpin, bullhead *(Cottidae)*
wutsíx - caribou *(Rangifer tarandus)*
x'eis'uwáh - willow ptarmigan *(Lagopus lagopus)*
x'éix - box crabs *(Lopholithodes sp.)*
x'óon - Alaska fur seal *(Callorhinus ursinus)*
x'óx' - crab apples *(Malus fusca)*
x'útgoo - dogfish (Squalidae)
x'wát' - lake trout *(Salvelinus namaycush)*
x'wát' - dolly varden *(Salvelinus malma)*
xál' - skunk cabbage *(Lysichiton americanum)*
xat shàyeè - fishheads
xèet' - giant clams
xoo ka ewoo - salmon eggs that have been soaked in freshwater overnight
xoon yux googwatee - "the salmon will be soft like decayed wood," accomplished by stomping on the fish
xootl - foxtail, after it turns brown
xóots - brown bear *(Ursus arctos)*
xúkwl'ee - soapberries *(Shepherdia canadensis)*
xuluk'úch' - porcupine *(Erethizon dorsatum)*
yàk - mussels *(Mytilus sp.)*
yanu èit - wild celery, cow parsnip *(Heracleum lanatum)*
yàw - Pacific herring *(Clupea harengus pallasi)*
yawaxeci' - choice strips of salmon ready to be dried
yees - special knives resembling ulus used in slicing fish
yéil' - elderberry *(Sambucus racemosa)*
yeilts'áaxu - limpet *(Acmaea sp.)*
yéin - sea cucumber *(Parastichopus sp.)*
yèis - horse clams *(Tresus nuttalli)*
yuloolèit - cockles *(Clinocardium nuttalli)*
yúxwch' - sea otter *(Enhydra lutris)*

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